PARENTAL DISSATISFACTION, OFFSPRING'S FILIAL DISCREPANCY, AND HEALTH AND WELLBEING AMONG OLDER CHINESE ADULTS

by

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STATEMENT OF DISSERTATION APPROVAL

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ABSTRACT

This dissertation is comprised of three empirical studies that provide a complementary understanding regarding parental dissatisfaction, offspring's filial discrepancy, and their effects on parental health and wellbeing in late life. Data were collected in 2014 from a sample of 432 community-dwelling respondents (not couples) aged 60 to 79 in Linxi County of northern China with a total number of 1,223 offspring.

The first study investigates whether parental dissatisfaction is linked to four health and wellbeing outcomes and explores potential psychological mechanisms that may underlie this proposed linkage. Findings indicate that parental dissatisfaction is significantly associated with the four outcomes, net of sociodemographic covariates. Findings also demonstrate that self-esteem and feeling useless mediate this association separately and simultaneously; suggesting both may function as individual and parallel psychological pathways underlying this linkage.

The second study identifies the correlates of parental dissatisfaction in old age by testing five blocks of potential correlates. Financial strain, poor health, dissatisfaction with any child's marital status, and having more child-raising problems than other parents are associated with parental dissatisfaction. Parentally dissatisfied parents also reported failing to get along with at least one child, having at least one child with filial discrepancy, and believing in weaker filial obligation from offspring.

The third one is a mixed-methods study using both quantitative and qualitative data. It examines the association between offspring's filial discrepancy and parental depression and explores the personal meaning of filial piety from the perspective of the older generation. Results from logistic regression indicate that filial discrepancy is significantly associated with parental depression, net of age, gender, financial strain, social support, and health status. Qualitative findings reveal that traditional filial piety values are fading even in one of the least developed Chinese counties, identifying six broad themes that reflect the coexistence of traditional and modern filial values regarding participants' definition of a *filial* child. These themes represent traditional filial piety values in a much-diluted form, filial piety values that converge with filial obligations in Western culture, and traditional filial piety beliefs in the absolute form, highlighting the complexity and evolution of the concept of filial piety.

I dedicate this dissertation to my parents, Chunjie Yang and Shufen Zhang.

Dad and Mom, thank you for everything!

It would have been impossible for me to achieve whatever I have accomplished today without your unconditional love and generous support.

I am truly blessed to be your daughter, and I am grateful every day for that.

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TABLE OF CONTENTS

LIST OF TABLES

Tables

LIST OF FIGURES

Figures

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CHAPTER 1

INTRODUCTION

Overview

The parent-child relationship provides a rare enduring social tie throughout the life course (Umberson, Pudrovska, & Reczek, 2010). Population aging and the increase in life expectancy today are making "linked lives" an ever-longer journey (as much as 50 years or more) for both parents and children, promoting intergenerational exchanges of affective ties, financial supports, and practical help to an extent that is only seen for the first time in human history (Umberson, 1992). For the older generation the decision of having a child, despite made earlier in adulthood, has lifelong consequences for a large range of parental psychological outcomes and life circumstances (Nelson, Kushlev, & Lyubomirsky, 2014). It might be extremely true in the Chinese case, where the value of *filial piety* has regulated family interactions and intergenerational relationships for thousands of years, and where adult children remain a primary source of support for the older population (Shen & Yeatts, 2013) because social welfare and health insurance systems are quite limited and are still being developed in China.

Filial piety (Chinese character: 孝, *xiao*) is arguably the most influential value in Chinese culture that has survived dramatic social and political changes across Chinese

history in China. It was neither a singular concept nor the product of a single intellectual trend even in early China (Radice, 2006). Rather, it is a multidimensional construct, representing a range of beliefs and behavioral guidelines that prescribe offspring's attitudes and behaviors toward their parents, such as respecting, loving, and obeying one's parents as well as providing care and support to one's parents. The practices and expectations of filial piety have changed through time and varied regionally across China (Miller, 2004) and are still constantly changing and evolving (Wang, Laidlaw, Power, & Shen, 2010) in contemporary China, where dramatic demographic changes, rapid modernization and urbanization, and frequent state regulations continue to occur (e.g., Luo & Zhan, 2012; Zhan, Feng, & Luo, 2008).

It is important to note that, *xiao* (孝), could be used as either an adjective (literally, *filial* or *impious* – not commonly interpreted) or noun (literally, *filial piety*) in the contemporary Chinese language. As an adjective, *xiao* (being *filial* or *impious*) is used to describe that a person's filial behaviors and attitudes have met normatively upheld filial piety expectations. Learning to be a *filial* child is "the essential first step toward being socialized to be an acceptable adult member of society" (Ho, Xie, Liang, & Zeng, 2012, p. 40) and enjoying offspring's filial piety is "a matter of course" for Chinese parents (Wang et al., 2010, p. 23). In this regard, filial discrepancy, referring to the subjective perception by a parent of a gap between the parent's expectations of filial piety and the offspring's actual practice of filial piety (Cheng & Chan, 2006), has important implications for older Chinese adults' health and wellbeing (e.g., Mao & Chi, 2011; Mjelde-Mossey, Chi, & Lou, 2006).

The number of China's older population (aged 65 or older) is forecasted to be

more than 228 million in 2030 and 333 million in 2050 (United Nations, 2010). China also has more than 160 million internal migrants (Wang, 2010, p. 1) who have supplied abundant labor in cities for the nation's booming economy, but meanwhile have left behind family members, including their older parents, in their original rural communities – a fact that may have influenced intergenerational exchange in rural China (Cong & Silverstein, 2011). Moreover, more than 160 million Chinese families have only one child (Wang) as a product of China's one-child policy established 36 years ago. Due to population aging and the one-child policy, a Chinese family age structure of 4-2-1 (four grandparents, a couple, and one grandchild) has become increasingly common. All these demographic dynamics make old age support an escalating challenge, and make parent-child relationships in later life increasingly complicated and important in China.

Dissertation Organization

Although research on parent-child ties in late life is increasing in both number and significance, much of the research focuses on how variables such as frequency of contact, living arrangements, and intergenerational transfers may affect parental health and wellbeing in old age (e.g., Kirchengast & Haslinger, 2008; Silverstein, Cong, & Li, 2006). Parental dissatisfaction as well as offspring's filial discrepancy in later life have received little scholarly attention and research in this area is surprisingly sparse (e.g., Cheng & Chan, 2006).

Drawing upon relevant aspects of the life course perspective, symbolic interactionism perspective, socioemotional selectivity theory, and stress process and stress proliferation models, this dissertation is comprised of three empirical studies that

provide a complementary understanding regarding parental dissatisfaction, offspring's filial discrepancy, and their effects on parental health and wellbeing in later life. The data used for this dissertation were taken from the 2014 Filial Piety and Health Survey (2014 FPHS), a cross-sectional survey containing both quantitative and qualitative data from a sample of 432 respondents (not couples; from different households) in Linxi County of northern China aged 60 to 79 with a total number of 1,223 offspring. The 2014 FPHS is a unique and most recent data set with extensive information covering almost all aspects of parent-child relationships across multiple children. I will describe the data collection in detail in Chapter 2 of this dissertation.

The first study (Chapter 3) investigates whether parental dissatisfaction is linked to four health and wellbeing outcomes (self-rated health, self-rated mental health, depression, and life satisfaction) and whether this proposed linkage is mediated by self-esteem and feelings of uselessness separately as well as simultaneously. The second study (Chapter 4) extends the investigation of parental dissatisfaction by further identifying the correlates of parental dissatisfaction in old age, testing five blocks of potential correlates to detect factors linked to parental dissatisfaction in later life. The third study (Chapter 5) uses mixed-methods to examine the association between offspring's filial discrepancy and parental depression as well as exploring the personal meaning of filial piety from the perspective of these older parents. The last chapter (Chapter 6) concludes the dissertation, summarizes implications for future literature, and briefly describes additional work in preparation using the same data set.

This dissertation is positioned at the intersection of three specified areas of sociology: aging, medical sociology, and family sociology (parent-child relationships, in

particular). It addresses the influence of two understudied constructs – parental dissatisfaction and offspring's filial discrepancy – on the health and wellbeing of older Chinese adults. Findings from this dissertation can inform the creation of novel and effective eldercare and family support policies and programs to provide better care and support to older adults, enhancing healthy aging experience and promoting increased quality of life among older adults. Moreover, these findings will advance our knowledge in understanding filial piety as a changing multidimensional construct from the perspective of older parents, and thus offer important insights into actions that could be taken to strengthen multigenerational understanding, interaction and contact. Likewise, these findings have potential practical implications for other countries (especially those in East and Southeast Asia) that have been exposed to the filial piety belief of Confucianism and have been undergoing comparable demographic and economic changes and trends.

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CHAPTER 2

COLLECTING DATA FROM SCRATCH: A DESCRIPTION OF THE PROCESSES OF DATA COLLECTION, DATA ENTRY AND DATA CLEANING

Background

Much of what scholars know about older Chinese adults' social relationships in the English research literature comes from the experiences of current cohorts of older adults attending several large-scale surveys. For example, the Chinese Longitudinal Healthy Longevity Survey (CLHLS), the China Health and Nutrition Survey (CHNS), or the most recent China Health and Retirement Longitudinal Study (CHARLS), CHARLS also recruits younger respondents in their late middle age (i.e., people aged 45 years and over). I am, however, particularly interested in the parent-child relationships and health and wellbeing outcomes among the young-old who are 60 to 79 years of age in the middle 2010s – like my parents and their siblings – and who live in the less or least developed communities that are familiar to me – like my hometown.

The young-old who are 60 to 79 years old in the middle 2010s belong to the birth cohorts of 1935 to 1954. Most of them came of age during the 1950s (the golden age of Chinese Communism) or the Cultural Revolution (1967-77), entering old age during the

middle-1990s and early 2010s. They witnessed or experienced a series of distinct and salient events that took place in China during the second half of the 20th century, such as the Land Reform and Business and Industry Reform in the early 1950s, the Great Leap Forward in 1958 and the subsequent Three Years of Natural Disasters (1959-1961), the Cultural Revolution in 1966-1976, the Send-down Youth movement in the 1960s and 1970s, the Reinstatement of the Matriculation Examination System in 1977, the Economic Reforms since 1978, and the One-child Policy in 1979.

Except for the differences in life experiences and prospects compared to the earlier cohorts, the young-old are more likely to have a smaller family size, increased labor force participation, better social-economical and health status, more equalized gender roles, and longer life expectancy. Similarly, life opportunities and constraints could also be different for those who are of similar age, yet who live in different areas with varying levels of socioeconomic development (e.g., the less or least vs. the more or most developed areas). Moreover, the large-scale data sets mentioned above generally do not contain a broader range of variables regarding parent-adult child ties typically desired in the research area of intergenerational relationship.

Given these concerns, I determined to collect my own data for my dissertation. Collaborating with my advisor, we submitted a proposal in August 2013 and successfully obtained a pilot grant three months later from Center on Aging at the University of Utah. This pilot grant ($19,900) enabled me to conduct in 2014 the proposed “Filial Piety and Health Survey” project (2014 FPHS) in one of the least developed counties in China, where I was born and raised until age of 17 when I left for college in another province. The goal of this project, broadly defined, is to identify factors that are associated with

older Chinese adults' health and wellbeing under the guidance of filial piety. In this chapter, I describe the study design and how I collected, entered, and cleaned the survey data.

Data Collection

Study Design

The phenomenon proposed to study in the "Filial Piety and Health Survey" project is so complex that a mixed-methods study design is desired in the data collection to examine the research questions, using the quantitative part of a survey as the core method, while the qualitative part comprised of open-ended questions is the supplemental component. The Institutional Review Board at the University of Utah approved the project as a minimal risk study on May 28, 2014 (IRB: 00067618). I then collected the data during June and August 2014.

Questionnaire Design

The mixed-methods questionnaire used for the 2014 FPHS was written drawing upon well-validated survey instruments from both English and Chinese language literatures; for instance, the National Social Life, Health, and Aging Project (NSHAP), Longitudinal Study of Generations (LSOG), the Hispanic Established Populations for Epidemiologic Studies of the Elderly, the National Health Interview Survey (NHIS), as well as CLHLS and CHARLS.

I started in October 2013 to focus on developing the complete version of the 2014 FPHS questionnaire in English and finished its final version in February 2014, which

contains 78 pages of questions organized in numerous sections. I eventually trimmed it into a much shorter version of 37 pages after several rounds of revision, which I then translated into Mandarin Chinese in April 2014. The final Chinese version used in the data collection had 40 pages, was printed double-sided and bound into a 20-page brochure. It contains a wide range of questions organized into seventeen sections, such as socio-demographic section, occupation and work status section, housing and living arrangement section, life style and elder mistreatment section, physical health status and psychological well-being section, marital section, relationship and exchange with each adult child section, grandchildren section, friends and other relatives section, attitudes toward aging section, and open-ended questions section. Only limited variables relevant to each individual study were analyzed in this dissertation.

Location

The data collection was conducted in Linxi County of the eastern Inner Mongolia Autonomous Region located in northern China. Linxi County is under the administration of Chifeng City, a prefecture-level city in southeastern Inner Mongolia lying to the north of Beijing. The distance between Linxi County and Beijing is about 390 miles. Located about 136 miles north of Chifeng City, Linxi County is adjacent to the upper reaches of the western Liao River and bordering the southern parts of Daxinganling mountains. Archeological studies reveal that the Linxi area has been settled for five thousand years with a bronze casting history that can be traced back two thousand seven hundred years. The Linxi area belonged to the Songmo Commandery in the Tang Dynasty (618-907) and to Rao Zhou in the Liao Dynasty (916-1125). The county was created in 1908 by the

Qing Dynasty (1644-1911).

Linxi County has a total area of 3,933 square kilometers, of which 786.6 square kilometers is arable land (1,180,000 mu), 1,713.3 square kilometers (2,570,000 mu) is forest, and 1,466.7 square kilometers (2,200,000 mu) is grassland. A traditionally agricultural county, the major crops grown in Linxi County include corn, spring wheat, beet, and potatoes. As of 2013, Linxi County has a total population of 240,906, of which 75% are an agricultural population and 94% are Han Chinese (the rest include ethnic groups such as Meng or Mongolian, Hui, and Manchu). This percentage corresponds to that of the national level of 72.02% according to the 2010 Census (Form 1-2; www.stats.gov.cn/tjsj/pcsj/rkpc/6rp/indexch.htm).

The county has been one of the 592 counties labeled “below poverty level” due to the meager average disposable income of its residents since 1992. According to the documents from Linxi County government, 24% of its agricultural population and 28% of its nonagricultural population live below the poverty level as of 2012. The average disposable income of its urban and rural residents is ¥18,209 ($2,785) and ¥6,771 ($1,036) respectively in 2013, significantly lower than the national average of ¥26,955 ($4,123) and ¥8,896 ($1,361), separately. Data collection conducted from administrative regions at this level and of comparable socioeconomic standing is very rare.

Sample

Linxi County is administratively divided into two subdistricts and eight townships (a subdistrict is the equivalent of a township). Older residents (aged 60 years and older) account for 16.29% of its total population. The 2014 FPHS sample was drawn from forty-

five neighborhoods within seven community centers of the two subdistricts of the county seat and a township. The sample selection criteria included participants who were 60 to 79 years old at the time of the survey, had apparently good cognitive ability to answer questions, had at least one living child, and were from different households (not couples).

Procedures

I conducted the pretesting of the questionnaire in late May and early June 2014 with a group of older adults who were mainly relatives and family friends. I fine-tuned the wording of the questionnaire according to the feedback received before sending it out for printing. In addition, I developed detailed instructional and training materials for interviewers and field staff at the same time.

Prior to beginning the data collection, I first met with the heads of the two subdistricts through a key contact who was a senior official of the county government, informing them about the study and eliciting their cooperation and support. Then the heads of the two subdistricts introduced me to leaders of the seven community centers under the governance of the two subdistricts. I described the study to them in details and took their questions when we met. Additionally, I held training sessions in the conference rooms of both the subdistricts and the community centers where I explained to the community staff (who would later serve as field staff) the study objectives, the questionnaire, the survey procedures, the selection criteria for potential respondents, and how to respond to questions raised by reluctant respondents properly.

The source of the sample was the electronic resident roster kept in the computer system of each community center that records itemized demographic information of all

household members in each household within all neighborhoods under its governance. A staff member from the community center made the initial contact with respondents. At each participating community center, a staff member first screened all of the residents on the roster according to the selection criteria to make a list of eligible residents. Then the staff member contacted the eligible residents by phone or by visit, giving a brief introduction of the study and scheduling an interview in the community center if a respondent was willing to participate. Detailed contact and recontact history, interview arrangements, the number of and reasons for refusals or for noncontact were carefully recorded on tracking forms that I designed and supplied, which I reviewed and checked on a regular basis with the community staff member.

Of the 464 eligible respondents contacted, 432 completed the face-to-face interview, yielding a response rate of 93%. The primary reasons for refusal included “not interested” (40%), “too much effort” (18%), “health reasons” (14%), and “other” (28%). The high response rate is largely attributable to the study being conducted with strong collaboration and support from local governing subdistricts and community centers. On average, each community center assigned at least two social workers (volunteers aside) to assist me with screening and contacting the eligible respondents, scheduling the interviews, arranging the interview rooms, and providing services when the interviews were in process. Being contacted by and interviewed in the community center greatly enhanced the credibility of the survey and therefore promoted awareness and involvement among the local residents. Many respondents were recruited by referrals from those who participated.

A team of three trained interviewers and I conducted all face-to-face interviews

using the mixed-methods questionnaire. I recruited and trained the three interviewers and none of them was community staff. Interviews were conducted mostly at community centers (or rarely at the respondents' homes), without the presence of persons other than the respondent and the interviewer. Prior to the start of an interview, the interviewer explained to each participant the aim of the survey, the survey process, and how the information collected would be used and how confidentiality would be handled. The interviewer emphasized that participation was voluntary and participants had the right to discontinue participation at any point as well as not to answer any questions in the interview they did not wish to answer. The duration of each interview varied from an hour and a half to two and a half hours. An interviewer typically carried out 3 to 4 interviews daily. I personally interviewed about one quarter of the respondents. Participants received ¥50 ($7.60) on completion of the survey.

Although I employed a convenience sampling method to reach participants, the sex and education composition of the 2014 FPHS sample is roughly comparable with that of the national level. Calculated according to the 2010 Census (Forms 3-1b and 4-1b; www.stats.gov.cn/tjsj/pcsj/rkpc/6rp/indexch.htm), of Chinese aged 60 to 79 living in townships, 50.54% were female (52.19% in Inner Mongolia) and 17.12% had no formal education compared with 55.32% and 20.83% in the 2014 FPHS sample respectively.

Quality Control

To ensure high-quality data collection, I carried out observation of interviewers at the beginning of the data collection stage to detect and correct errors and provide them with immediate feedback. I checked each questionnaire for its consistency and

completeness on the same day that it was conducted. Missing or ambiguous items detected were verified first with the interviewer; if not solvable, a follow up telephone call or next-day visit was then made with the participant. Interviewers were required to keep interviewer notes on the margin of each questionnaire that would later be entered into the online system used for data entry. I scheduled weekly team meetings to update data collection progress, review data collection techniques, discuss issues and difficulties encountered, and make adjustments to solve problems. Moreover, I hung out with the data collection team regularly to debrief and gain valuable feedback regarding data processing and entry as well as to celebrate when data collection was finally completed.

Data Entry

Data entry started in the middle of the data collection process and ended immediately after the conclusion of the data collection. The interviewer team and I undertook this task, using our own personal laptops after returning home from work. Each interviewer was responsible for data entry of the interviews completed. Two interviewers also helped enter some of the interview questionnaires I conducted. Survey data on the completed paper questionnaires were entered online into the system of *Qualtrics*, a data collection site (www.qualtrics.com), using an anonymous survey link that I had previously set up and distributed to the interviewer team. In order to protect the identities of respondents, the name and address of each respondent were not entered into the online system. During this process, I performed daily backup of data by extracting the information entered from the system of *Qualtrics* and kept it in a password-protected flash drive and laptop, respectively. I destroyed copies of the previously saved data set

regularly as the data entry process proceeded to keep only the most recent version to save space and reduce confusion.

During data entry, I randomly selected 5% of the electronically entered questionnaires to check them against the paper questionnaires to ensure accuracy of data entry. I informed each interviewer immediately of any data entry errors identified during the audit in order to avoiding similar mistakes on future entries. At the same time, I kept a copy of audit notes for future use in data cleaning. Upon completion of data entry, I downloaded a single Excel spreadsheet file (.csv) containing all the entered data from the *Qualtrics* website. Together with the interviewer team, we checked whether each copy of the paper questionnaire had a matching entry on the .csv file, ensuring that each paper questionnaire was properly represented by a matching case in the .csv file. The height of all the paper questionnaires piled up reached a reading of one meter.

Data Cleaning

The task of data cleaning was solely taken by myself, started in October 2014 at the University of Utah after returning back from the data collection trip in mid-September. It was mainly performed on the .csv file opened in a Microsoft Excel 2013 spreadsheet. During data cleaning, I first checked the variables of Age and Gender before cleaning the remaining variables. I checked and rechecked each variable back and forth for several rounds, looking for outliers, completeness, and consistency within the context of the individual respondent and the context of the whole range of the same variable as well as in relation to the whole data set. For example, I checked outliers by listing the frequency, the mean, and the standard deviation for a categorical or continuous variable. I

fixed all errors detected and I imputed all missing values – only a very tiny number –by reviewing the completed instrument and interviewers' notes. I also backed up the .csv file on a daily basis to avoid data loss.

The bulk of data cleaning was conducted in Marriott Library using the library computers with dual displays, since the excel spreadsheet holding the original data was too long to be appropriately displayed on my laptop. This task was far more tedious, time-consuming, error-prone, and demanding than I previously expected. It required long hours of focus on the spreadsheet. It frequently gave me a headache and feelings of dizziness and nausea after sitting in front of the computer displays day-in and day-out for long hours. It was bad to work eight hours on this task for several days in a row – as I tried in December 2014 – as the feelings of nausea would be the culprit that lowered the efficiency and interest level in the days to follow. I therefore limited my daily data cleaning involvement to four hours at the late stage of this process to maintain quality concentration and spent the rest of the day on other dissertation making related tasks. Overall, from October 2014 to the end of February 2015, I spent about four hundred and twenty (420) hours on data cleaning. Upon completion of data cleaning, I imported the .csv file into Stata 13/MP and IBM SPSS Statistics 22 for analyses. I will demonstrate results of these analyses in Chapters 3, 4, and 5 of this dissertation in terms of three individual studies.

In summary, with hindsight, I would say that the data collection (and its integral parts of data entry, and data cleaning) was a very stressful, time-consuming, emotionally and physically challenging experience. It was also very rewarding, though. The whole process lasted 18 months, starting in August 2013 from the application of the pilot grant

and ending in late February 2015 when the bulk of data cleaning was completed. During the course of data collection, I frequently considered my own position relative to the interviewees, as a researcher and a person of their children's age, especially when facing unexpected interactions that occurred on site. This constant self-conscious reflection did induce self-discovery and insights that led me to rethink my role as a researcher, as a daughter, and as an individual, informing new potential directions for my research and my life.

CHAPTER 3

PARENTAL DISSATISFACTION, HEALTH AND WELLBEING IN LATER LIFE: THE MAIN EFFECT, AND SELF-ESTEEM AND FEELING USELESS AS MEDIATORS ACROSS FOUR OUTCOMES

Abstract

Relatively little research has considered the relationship between parental dissatisfaction and health and wellbeing in late life, without mentioning the mechanisms underlying this posited link. The focus of this study is to address these literature gaps by investigating 1) whether parental dissatisfaction is linked to four health and wellbeing outcomes (self-rated health, self-rated mental health, depression, and life satisfaction); 2) whether this proposed relationship is mediated separately by self-esteem and feeling useless; and 3) whether this proposed association is also mediated by self-esteem and feeling useless simultaneously. Cross-sectional data from the 2014 Filial Piety and Health Survey (2014 FPHS) consisting of 432 community-dwelling older Chinese parents (not couples) between 60 and 79 years of age are employed. Findings indicate that parental dissatisfaction is significantly associated with the four health and wellbeing outcomes among older Chinese adults, net of sociodemographic covariates. Findings also

demonstrate that self-esteem and feeling useless each mediates this association individually. Furthermore, self-esteem and feeling useless mediate the association of parental dissatisfaction with health and wellbeing simultaneously; suggesting that both may function as parallel pathways underlying this link. Findings indicate the importance of developing and implementing interventions that enhance self-esteem and feelings of usefulness particularly among older Chinese adults who are dissatisfied with their parental roles. Further research is needed to explore the correlates of parental dissatisfaction in old age in an attempt to design effective interventions aimed directly at reducing parental dissatisfaction.

Introduction

Although research on parent-adult child ties in late life is increasing in both number and significance, much of the existing research focuses on how variables such as frequency of contact, living arrangements, and intergenerational transfers may affect parental health and wellbeing in old age (e.g., Kirchengast & Haslinger, 2008; Silverstein, Cong, & Li, 2006). Parental dissatisfaction in later life has received little scholarly attention, not to mention the possible psychological mechanisms through which parental dissatisfaction may affect parental health and wellbeing. Recent studies, however, point to the importance of exploring these areas of research (Reczek & Zhang, 2015; Thoits, 2011; Uchino, Bowen, Carlisle, & Birmingham, 2012). Drawing upon relevant aspects of the life course perspective, symbolic interactionism perspective, socioemotional selectivity theory, and the stress process model, the current study examines the influence of parental dissatisfaction on four health and wellbeing outcomes

as well as the underlying psychological pathways linking this proposed association among a sample of older Chinese parents.

The symbolic interactionism perspective and life course framework are of particular relevance for deriving hypotheses about how and why parental dissatisfaction matters in later life. Social roles, according to the symbolic interactionism perspective, are positions or statuses in the social structure regulated by a set of normative rights and obligations, which give identity, guidance, purpose and a sense of meaning to life through role involvements (Berkman, 2000; Thoits, 1983, 2011). Individuals assume multiple roles in life domains such as family, work, friendship, and the community throughout the life course and act in ways consistent with the behavioral expectations required by each role when interacting with others (Orth, Maes, & Schmitt, 2015). The life course perspective (Elder, 1985; Mayer, 2009) emphasizes that development and aging are lifelong processes and that the lives of parents and children are linked across the life course. In accordance with the two perspectives, the parental role represents "a life-long trajectory of shifting demands and responsibilities" (Milkie, Bierman, & Schieman, 2008, p. 87). Unlike most other social roles that have specified durations and clear boundaries, the parental role never ends and continues its reach into later life. Actually, population aging and longer life expectancy are making "linked lives" an ever-longer journey in contemporary society for both parents and children for the first time in human history, commonly lasting as long as 50 years (Umberson, 1992).

Among all social roles an individual could possess throughout the life course, the parental role is found to be a prominent source of identity and ranked at the top of most parents' identity salience hierarchies, higher even than their worker role (Thoits, 1992).

Moreover, the parental role might become even more important relative to other roles as individuals transition into old age where negative changes in social roles occur frequently (Pudrovska, 2009). Older adults, for example, are more likely to experience the loss of other salient roles (e.g., the worker role, and, possibly, the spouse role) or a decline in role involvement in certain roles (e.g., reduced contacts with former coworkers, alteration in relationships with a spouse's family after the death of the spouse) (Orth et al., 2015). The decision to have a child, despite made earlier in adulthood, therefore has lifelong consequences for a large range of parental psychological outcomes and life circumstances (Nelson, Kushlev, & Lyubomirsky, 2014), given that the parent-child relationship may provide a rare enduring social tie throughout the life course (Umberson, 1992; Umberson, Pudrovska, & Reczek, 2010).

Furthermore, since the quality of experience in a role is more important to health than role occupancy per se (Barnett & Hyde, 2001), parental satisfaction, conceptualized as "an individual social-psychological construct that taps individual feelings of satisfaction with one's relationships with one's children" (Rogers & White, 1998, p. 297), becomes particularly relevant to older parents' health and wellbeing. Sabatelli and Waldron (1995) have even claimed that the parent-adult child interactions and "parents' satisfaction with their child, children, or stepchildren, or parents' perceptions of the burdens and rewards derived from being a parent" should be the focal measurement of parenthood (p. 975).

Socioemotional selectivity theory also provides additional theoretical rationale for this study. It postulates that older people focus more on maintaining emotionally meaningful social relationships (e.g., family ties and ties with close friends) as they

realize that their time left in life is limited (Carstensen, Isaacowitz, & Charles, 1999). Older people thus tend to have smaller social networks (Carstensen, 1995) and are often less engaged in the community than in midlife (Fast & De Jong Gierveld, 2008). Therefore, parent-adult child relationships could become more important and influential on time use allocation decisions among the older generation and have the potential to influence health and wellbeing outcomes of the older generation through frequent and continuing intergenerational interactions.

From a stress-process and stress-buffering theoretical framework (Pearlin, Menaghan, Lieberman, & Mullan, 1981; Pearlin, 1989), chronic strains could arise from interpersonal conflicts within the parent-adult child role set, as they interact with each other in a continuing relationship. Such chronic stressors erode positive concepts of self, such as self-esteem and mastery, typically manifesting in the form of psychological distress that ultimately increases the risk of being exposed to poor health outcomes. Alternatively, when older adults are in satisfying and supportive parent-adult child ties, it is believed that they will be more likely to have better health outcomes. Parental dissatisfaction, as a chronic stressor, therefore, may affect health and wellbeing outcomes in both a direct and a stress-buffering fashion.

The direct evidence in the literature on the relationship between parental dissatisfaction and health and wellbeing in old age, however, is limited to two U.S. studies that examine the same health outcome using the exact same measurement. The older study, conducted by Umberson (1992), found that parentally dissatisfied parents had elevated levels of psychological distress (measured by an 11-item version of the Center for Epidemiological Studies Depression Scale), using cross-sectional data from a

1986 U.S. national survey of parents of offspring aged 16 and older. The more recent study (Reczek & Zhang, 2015) reached the same conclusion prospectively, using data from the first four waves of the Americans' Changing Lives panel study (1986-2001).

Moreover, only a handful of studies have investigated the impact of strained and conflicted parent-adult child relationships (variables that might be indicative of or correlated with parental dissatisfaction) on health and wellbeing in later life. Among them are four U.S. studies (Koropeckyj-Cox, 2002; Milkie et al., 2008; Milkie, Norris, & Bierman, 2011; Ward, 2008) which have shown that poor relationships with children and adult children's problem as teens (e.g., poor relationship quality with at least one child, negative treatment of parents by children, adult children's troubles as teenagers) were associated with more depression in older parents (aged 50 and older for two studies or aged 65 and older for the other two studies, respectively), cross-sectionally and prospectively. The fifth and the only non-U.S. study by Zunzunegui, Béland, Sanchez, and Otero (2009) found that having a poor relationship with at least one child increased the risk of mortality in a random sample of older Spanish adults aged over 65.

In sum, the few studies reviewed here, directly or indirectly addressing parental dissatisfaction and health in later life, were conducted primarily in the United States and focus mainly on depression as an outcome (with the exception of the study conducted in Spain). There is virtually no research examining whether these results are applicable to other health outcomes or are related to older parents in non-Western cultures, such as China, where the experience of later life parenthood might be quite different.

If parental dissatisfaction affects parental health and wellbeing in old age, why and how does this occur? One potential explanatory pathway that may mediate this

relationship has to do with psychological processes such as self-esteem and feelings of uselessness. Psychological resources have long been postulated in most conceptual models as theoretically important mechanisms underlying social support to health (Berkman, Glass, Brissette, & Seeman, 2000; Cohen, 2004; Thoits, 2011; Uchino et al., 2012). For instance, Thoits (2011) has articulated that an individual's self-evaluations for her or his success in various roles depend on both comparisons with similar others and imagination of how role partners and other audiences evaluate her or his role performances. As a result, high self-evaluations in highly valued role domains affect an individual's global self-esteem, while self-esteem in turn is linked to her or his health outcomes. This proposition is supported by a cross-sectional study of 86 end-stage renal disease patients (mean age=54.8, *SD*=13.6), where a mediator effect of self-esteem on the relationship between perception of the availability of social support and depression has been observed (Symister & Friend, 2003).

Moreover, the impact of psychological resources on health and wellbeing outcomes has been well documented with empirical evidence showing that high levels of positive psychological resources are related to positive health outcomes. For example, higher self-esteem has been linked to good physical health (Orth, Robins, & Widaman, 2012), lower risk of depression (Sowislo & Orth, 2013), and higher levels of satisfaction with life (Zhang & Leung, 2002) across a wide range of age groups (16-97, 8.2-79.3, and 14-88, respectively). It has also been shown predicting lower risk of having the onset of difficulty in performing activities of daily living (ADL) prospectively among older adults (Yang & Wen, 2015). Similarly, higher levels of feeling useless have been linked to higher risk of the onset of ADL disability, poorer physical health, and higher risk of

mortality (Gruenewald, Karlamangla, Greendale, Singer, & Seeman, 2007; Gruenewald, Karlamangla, Greendale, Singer, & Seeman, 2008; Okamoto & Tanaka, 2004) in old age.

In addition, the influence of lower self-esteem or higher feelings of uselessness on health and wellbeing may be more evident in later life given that self-esteem begins to decrease in old age (e.g., Orth et al., 2015) and older people generally see themselves as less useful than middle-aged individuals (Mutran & Burke, 1979). As such, any disruptions in psychological resources resulting from parental dissatisfaction may be particularly detrimental for parental health and wellbeing. Likewise, empirically establishing self-esteem and feeling useless as two psychological pathways of the association between parental dissatisfaction and health and wellbeing would inform researchers to design and implement more effective interventions (e.g., Gruenewald & Seeman, 2010; Thoits, 2011). It is thus logical and significant to think that self-esteem and feeling useless may underlie the link between parental dissatisfaction and parental health and wellbeing in later life, which I trace in this study through a Chinese case.

There is a dearth of evidence on the role of parental dissatisfaction in influencing parental health and wellbeing among older Chinese adults. Beyond just a gap in literature, however, the Chinese case holds significance for several reasons. First, China is experiencing rapid population aging, with more than 109 million people aged 65 or older in 2010, more than 228 million in 2030, and 333 million in 2050 according to projections (United Nations, 2010). Second, family support from adult children remains a primary source of support for older adults in China (Shen & Yeatts, 2013), where social welfare and health insurance systems are quite limited and still being developed. Third, traditionally in Chinese culture, filial piety – the virtue of respect for, taking care of, and

obeying one's parents – has shaped the expectations and behaviors of Chinese families for thousands of years as a central value of family life (Ikels, 2004). Under the regulation and guidance of filial piety beliefs, older Chinese adults may have different expectations for their parental roles in later life as well as for the interactions with and support from adult children relative to older adults in other cultural contexts. This is because cultural norms (e.g., definitions of acceptable and unacceptable behaviors) can affect capabilities and subjective role quality by way of affecting role practices (Barnett & Hyde, 2001), also because social integration and support may be conditioned upon cultural contexts (Thoits, 2011). Hence, it may be particularly detrimental for older Chinese adults if they are dissatisfied with their parental roles.

The present study uses a sample of older Chinese parents to test whether and how parental dissatisfaction in later life wields influence on parents' health and wellbeing. My conceptual model of the associations among parental dissatisfaction, self-esteem, feeling useless, and multiple health and wellbeing outcomes is diagrammed in Figure 3.1.

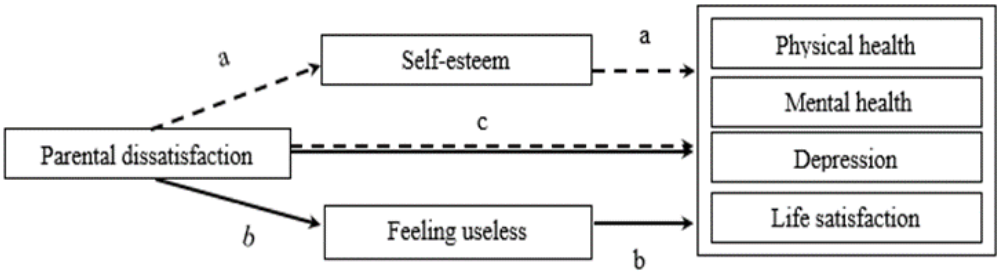

FIGURE 3.1 A Conceptual path model of the association among parental dissatisfaction, self-esteem, feeling useless, and health and wellbeing outcomes
3.1a - - → Simple mediation: direct and indirect influence of parental dissatisfaction on health and wellbeing outcomes via self-esteem
3.1b ⟶ Simple mediation: direct and indirect influence of parental dissatisfaction on health and wellbeing outcomes via feeling useless
3.1c = = → Parallel mediation: direct and indirect influence of parental dissatisfaction on health and wellbeing outcomes via self-esteem and feeling useless

I test a series of hypotheses based on this model using data from the 2014 Filial Piety and Health Survey (2014 FPHS), a unique and recent data set containing a sample of community-dwelling older respondents residing in a county of Northern China. Specifically, I hypothesize that:

I. Parental dissatisfaction is associated with poor health and wellbeing outcomes in later life, accounting for sociodemographic covariates.

II. Self-esteem and feeling useless mediate the association between parental dissatisfaction and health and wellbeing outcomes individually, indicating the existence of two different pathways underlying the posited association (Figure 3.1a and 3.1b).

III. Self-esteem and feeling useless also mediate the association between parental dissatisfaction and health and wellbeing outcomes simultaneously, suggesting the coexistence of two different mechanisms linking the proposed association (Figure 3.1c).

Methods

Data and Sample

The data employed in this study were from the 2014 Filial Piety and Health Survey (2014 FPHS) that was conducted between June and August 2014 employing face-to-face interviews with a sample of 432 older people residing in Linxi County, a traditionally agricultural county located in the Inner Mongolia Autonomous Region of northern China. The project received approval from the University of Utah's Institutional Review Board in May 2014 (IRB: 00067618).

The sample was drawn from forty-five neighborhoods within seven community centers of the two subdistricts of the county seat and a township (a subdistrict is the equivalent of a township). The selection criteria included participants who were, at the time of the survey, 60 to 79 years old, apparently cognitively capable of answering questions, from different households (not couples), and who had at least one living child.

Procedures

The source of the sample was the electronic resident roster kept in the computer system of each community center, which records detailed demographic information for all household members in each household within all neighborhoods under its governance. At each participating community center, a community staff contacted eligible respondents and had the information about the survey explained to them. Of the 464 eligible respondents contacted, 432 completed the face-to-face interview, yielding a response rate of 93%. The high response rate is largely attributable to the study being conducted with strong collaboration and support from local governing subdistricts and community centers. Being contacted by and interviewed in the community center greatly enhanced the credibility of the survey and therefore promoted awareness and involvement among the local residents. Many respondents were recruited by referrals from those who participated.

A team of three trained interviewers and I conducted all face-to-face interviews using a standard questionnaire. I recruited and trained the three interviewers and none of them was community staff. Interviews were conducted mostly at community centers (or rarely at the respondents' homes), without the presence of persons other than the

respondent and the interviewer. Prior to the start of an interview, the interviewer explained to each participant the aim of the survey, the survey process, how the information collected would be used, and how confidentiality would be handled. The interviewer emphasized that participation was voluntary and that participants had the right to discontinue participation at any point, as well as to refuse answer any specific questions in the interview they did not wish to answer. The duration of each interview varied from an hour and a half to two and a half hours. Participants received ¥50 ($7.60) on completion of the interview.

Dependent Variables

One health outcome and three wellbeing outcomes are dependent variables in this study, including physical health, self-rated mental health, depression, and life satisfaction. *Physical health* was assessed using a single item measure asking respondents, "How do you rate your health on a 5-point scale ranging from 1 (*excellent*) to 5 (*poor*) these days?" The validity of this global single-item indicator in independently predicting morbidity and mortality has been well established (e.g., Benyamini, 2011; Idler & Benyamini, 1997; Manora, Matthewsb, & Powerb, 2001; Schnittker & Bacak, 2014). I collapsed the five response options into a dichotomous response (1=*fair* or *poor*; 0=*excellent*, *very good*, or *good*) to deal with its highly negatively skewed distribution. *Mental health* was tapped with a single question that asks, "How do you rate your overall mental health on a 5-point scale ranging from 1 (*excellent*) to 5 (*poor*) these days?" This single-item measure of self-rated mental health has been increasingly used as a stand-alone indicator of mental health in health research (Ahmad, Jhajj, Stewart, Burghardt, &

Bierman, 2014). This global indicator of mental health has been reported to be significantly associated with psychological symptoms and mental disorders (e.g., Fleishman & Zuvekas, 2007; Kim et al., 2011) and proved to be a strong predictor of mental health service use (e.g., Zuvekas & Fleishman, 2008). Like physical health, the responses to this self-rated mental health question were dichotomized into two options (1=*fair* or *poor*; 0=*excellent, very good,* or *good*) to deal with its highly negatively skewed distribution.

Depression was screened using a 5-item version of the Geriatric Depression Scale (GDS-5) that asks respondents to answer "yes" or "no" to the following five questions: "Are you basically satisfied with your life?" "Do you often get bored?" "Do you often feel helpless?" "Do you prefer to stay at home rather than going out and doing new things?" "Do you feel pretty worthless the way you are now?" For item 1, a response of "no" scores 1 point and "yes" 0 point; for items 2-5, a "yes" response scores 1 point and "no" 0 point. The maximum point total is 5. Respondents with a total score of 0 or 1 are considered "normal" while those who scored 2 or higher are categorized as "depressed" (α = 0.67). GDS-5 was shown as effective as the 15-item GDS for screening of depression in older adults (e.g., Nguyen, Inderjeeth, Tang, Barnabas, & Merriam, 2006) yet avoiding response fatigue was encountered while using the long and comprehensive form of the GDS assessments.

Life satisfaction was measured by the widely used Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985). Rated on a 7-point scale of 1 (*strongly disagree*) to 7 (*strongly agree*) for each item, this scale contains the following five items: "In most ways my life is close to my ideal." "The conditions of my life are

excellent.” ‘‘I am satisfied with my life.’’ ‘‘So far I have gotten the important things I want in life.’’ and ‘‘If I could live my life again, I would change almost nothing.” The points were aggregated across items with higher scores representing higher life satisfaction (α = 0.81).

Key Independent Variable

Parental dissatisfaction[1] is the key independent variable based on the first question on the *Relationship and Exchange with Children Section* of the standard questionnaire, following the *Relationship with Spouse/Partner* section. Before asking this question, interviewers read the following sentences to each interviewee: “Next we’ll move into the *Relationship and Exchange with Children* section. Questions in this section are to ask your relationship with your children.” Then the interviewers paused a second and asked the first section question: ‘‘All in all, on a scale of 1-6 with 1 being ‘*not at all satisfied*’ and 6 being ‘*extremely satisfied,*’ how satisfied are you with being a parent?”

Responses to this question were highly skewed, with the majority of responses falling into category of “*very*” or “*extremely*” satisfied (*n* = 280, 64.81%) and the rest containing less satisfactory options such as “*not at all satisfied*” to “*somewhat satisfied*”. Research has shown that older parents are more likely to report greater affection for and closeness to their adult children than their descendants do for them, because older

[1]Both U.S. studies examining the association between parental dissatisfaction and depression (Reczek & Zhang, 2015; Umberson, 1992) measured parental dissatisfaction using three questions (α = 0.62 and .64, respectively). The first question was the same as mine, the second and third asked, "How often do you feel bothered or upset as a parent?" and "How happy are you with the way your child(ren)turned out?”, respectively. Only the first question was available among the 2014 FPHS sample, however.

generations invested more resources in the younger generations than vice versa (Swartz, 2009). Moreover, subject to the social desirability bias, people tend to report what is socially acceptable or expected rather than their real sentiments. In addition, dissonance theory (Secord & Backman, 1974) argues that parents report high satisfaction in the parental role despite the presence of deleterious relationships with children, responding to an attitude adjustment consistent with their earlier decision to have children. As such, I dichotomized the measure of parental dissatisfaction into "*very/extremely satisfied* (5 and 6) =0" and "*somewhat dissatisfied* (1-4) =1," treating it as a binary variable to deal with its highly negatively skewed distribution.

Mediating Variables

Self-esteem was assessed with the 10-item Rosenberg Self-Esteem Scale (RSE), measuring a person's subjective evaluation of herself or himself as a person of worth (Rosenberg, 1979). RSE is a frequently used and well-validated measure of global self-esteem (Sowislo & Orth, 2013) that includes items such as "On the whole, I am satisfied with myself", "At times I think I am no good at all", "I feel that I have a number of good qualities", "I wish I could have more respect for myself", etc. Responses were measured using a 4-point scale ranging from 1 (*strongly agree*) to 4 (*strongly disagree*). Five items were reverse-coded before aggregation to make the higher the score the higher the level of self-esteem ($\alpha = 0.84$).

Feeling useless was assessed by a single probe: "Do you feel the older you get, the more useless you are?" Response options range from 1 (*never*) to 5 (*always*), with intermediate labels to denote intermediate levels of feeling useless. To be consistent with the original Chinese wording of this question, I did not reverse the scores to make higher

scores indicative of higher levels of feeling useful (like the direction in self-esteem), though. A higher score thus represents a higher level of feeling useless.

Control Variables

Control variables include sociodemographic variables such as age, gender, and financial hardship. Age was measured in number of years. Gender was coded 1 for *female*, 0 for *male*. Financial hardship was measured by asking "Do you have difficulty paying bills each month?" Response options range from 1 (*not at all*) to 3 (*often*). It was dichotomized into a dummy variable to indicate whether the respondent experienced financial hardship (coded 1) or not (coded 0).

Statistical Analysis

The analysis was conducted in two stages. In the first stage, descriptive statistics were first calculated for measures employed. The bivariate correlations among different variables were then examined. Next, I run logistic regression models of physical health, mental health, depression, and ordinary least squares (OLS) linear regression models of life satisfaction. For each outcome, Model 1 examined the main effect of parental dissatisfaction (the X) while controlling for covariates (i.e., age, gender, and financial hardship). Model 2 added self-esteem (Mediator 1) to Model 1 to test whether the link would be explained by differences in levels of self-esteem. Model 3 added feeling useless (Mediator 2) to Model 1 to test whether the relationship would be explained by differences in levels of feeling useless. Model 4 added both self-esteem and feeling useless to Model 1 to explore whether the explanatory power of each mediator will

coexist simultaneously. All analyses at this stage were performed using Stata/MP 13.1.

In the second stage mediation analysis was conducted in three steps for each outcome, net of age, gender, and financial hardship. First, self-esteem was analyzed using simple mediation analysis to determine whether the indirect effect is significant (Figure 3.1a). Second, feeling useless was analyzed going through the same procedure (Figure 3.1b). Third, each mediating variable was retained in the multiple mediation models to simultaneously examine whether any individual variable still significantly mediates the observed association while also evaluating the other mediator (Figure 3.1c). I reported bootstrap estimates based on 10,000 bootstrap samples because bootstrap confidence intervals "yield inferences that are more likely to be accurate than when the normal theory approach is used" (Hayes, 2013, p.105) and "more than 10,000 typically is not necessary, but in principle, the more the better" (Hayes, 2013, p. 106). The 95% bias corrected (BC) confidence intervals (CI) were used to infer significance: significant mediation effects are supported when the 95% BC CI for the point estimate does not include zero (Hayes). All analyses at this stage were performed employing the Hayes PROCESS macro (Hayes) in IBM SPSS 22.

Results

Respondents' Characteristics

Table 3.1 presents a description of the sample characteristics. The sample is composed of 432 older people with a mean age of 66.24 years (range 60-79; *SD*=5.00). The majority of the respondents were women (55.32%), had reported experiencing financial hardship (68.98%) in terms of having difficulty paying monthly bills, and

TABLE 3.1

Descriptive Statistics of Variables Analyzed (N=432)

Variables	Range	M (SD)	%
Age in years	60 – 79	66.24 (5.00)	
Female (vs. male)			55.32
Financial hardship (vs. not at all)			68.98
Parental dissatisfaction (vs. satisfaction)			35.19
Self-esteem [a]	18 – 40	28.13 (3.44)	
Feeling useless [a]	1 – 5	2.58 (1.23)	
Ill physical health (vs. good)			63.89
Ill mental health (vs. good)			47.92
Depressed (vs. normal)			34.95
Life satisfaction [a]	8 – 35	26.79 (4.93)	

Category in parentheses is the reference group.

[a] Higher scores reflect greater levels of variables, respectively.

having poor physical health (63.89%). Fewer than half of the respondents reported being dissatisfied as a parent (35.19%), having poor mental health (47.92%), or being depressed (34.95%). The mean score of life satisfaction for the participants was 26.79 (range 8-35; *SD*=4.93). With regard to self-esteem and feeling useless, the sample had a mean score of 28.13 (range 18-40; *SD*=3.44) for the former and 2.58 (range 1-5; *SD*=1.23) for the latter.

Table 3.2 shows bivariate correlations of study measures. Parental dissatisfaction is significantly correlated with all dependent variables and the two mediators. Similarly, each mediator is significantly correlated with each dependent variable and with each other. All correlation coefficients are below .60, and the highest correlation is observed between self-esteem and depression ($r = .58$, $p<.001$).

Parental Dissatisfaction, and Health and Wellbeing Outcomes

Variance inflation factors (VIFs) were assessed for multicollinearity diagnostics. The calculated VIFs (1.03-1.17) were far less than 4.00, the suggested indication of multicollinearity (Cohen, Cohen, West, & Aiken, 2003). Models 1 in Table 3.3 display the results from logistic and OLS regression models testing the relationships between parental dissatisfaction and each of the four health and wellbeing outcomes, net of age, gender, and financial hardship. Results reveal that parentally dissatisfied older adults experienced worse health and wellbeing outcomes (i.e., poor physical health, poor mental health, depression, and lower life dissatisfaction) compared with those who reported being a satisfied parent. Compared with satisfied older parents, for example, dissatisfied older parents had a 168.5% increase in the odds of having poor physical health.

TABLE 3.2

Bivariate Correlations among Variables Analyzed

	1	2	3	4	5	6	7	8	9	10
1 Age	1.00									
2 Female	-0.17***	1.00								
3 Financial hardship	0.02	0.07	1.00							
4 Parental dissatisfaction	-0.06	0.02	0.10	1.00						
5 Ill physical health	-0.07	0.14**	0.25***	0.22**	1.00					
6 Ill mental health	-0.09	0.16***	0.24***	0.25***	0.54***	1.00				
7 Depression	0.09	0.18***	0.27***	0.20***	0.32***	0.35***	1.00			
8 Life satisfaction [a]	0.06	-0.12	-0.25***	-0.30***	-0.27***	-0.30***	-0.28***	1.00		
9 Self-esteem [a]	-0.12	-0.16***	-0.35***	-0.18***	-0.30***	-0.28***	-0.58***	-0.29***	1.00	
10 Feeling useless [a]	0.21***	0.07	0.28***	0.19***	0.30***	0.27***	0.42***	-0.31***	-0.46***	1.00

[a] Higher scores reflect greater levels of variables, respectively.

***P*<.01; ****P*<.001; two-tailed.

TABLE 3.3

Odds Ratios from Logistic Regression of Physical Health, Mental Health, and Depression as well as Coefficients from OLS Regression of Life Satisfaction, Respectively (N=432)

Variables	Ill Physical Health				Ill Mental Health			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
Parental dissatisfaction (vs. satisfaction)	2.685***	2.373***	2.270***	2.148**	2.876***	2.569***	2.504***	2.372***
Age in years	0.984	0.972	0.955*	0.951*	0.969	0.955*	0.944*	0.939**
Female (vs. male)	1.690*	1.487	1.589*	1.471	1.838**	1.628*	1.753**	1.620*
Financial hardship (vs. no)	2.779***	2.130**	2.194***	1.902**	2.858***	2.171**	2.296***	1.966**
Self-esteem [a]		0.869***		0.908*		0.868***		0.902**
Feeling useless [a]			1.599***	1.470***			1.488***	1.358**
R^2								

Cont.

Depressed				Life Satisfaction (*SE*)							
Model 1	Model 2	Model 3	Model 4	Model 1		Model 2		Model 3		Model 4	
2.449***	1.890*	1.965**	1.665	-2.614***	*(.466)*	-2.193***	*(.459)*	-2.157***	*(.460)*	-1.962***	*(.456)*
1.062**	1.030	1.023	1.008	.038	*(.045)*	.070	*(.044)*	.098*	*(.045)*	.106*	*(.044)*
2.467***	2.010**	2.325***	1.923*	-1.057*	*(.452)*	-.650	*(.445)*	-.859	*(.440)*	-.609	*(.438)*
3.945***	1.909*	2.807***	1.611	-2.295***	*(.482)*	-1.493**	*(.492)*	-1.631**	*(.484)*	-1.207*	*(.490)*
	0.601***		0.629***			.361***	*(.068)*			.267***	*(.072)*
		1.944***	1.497**					-1.018***	*(.191)*	-.758***	*(.201)*
				.140		.193		.194		.219	

[a] Higher scores reflect greater levels of variables, respectively. Category in parentheses is the reference group.

$^{*}P<.05$; $^{**}P<.01$; $^{***}P<.001$. *SE* = standard error.

Parental Dissatisfaction, Self-Esteem, Feeling Useless, and Health and Wellbeing Outcomes

Models 2 in Table 3.3 present the associations between self-esteem and each of the four outcomes, controlling for parental dissatisfaction, age, gender, and financial hardship. In general, higher levels of self-esteem are linked to lower possibility of having poor physical and mental health, depression, and to higher levels of life satisfaction. As we see in the mental health outcome, for instance, a 15.2% (1/. 868=1.152) decrease in the odds of having poor mental health for a one-unit increase in self-esteem. Moreover, we see that after taking self-esteem into consideration, the odds ratio/coefficients of parental dissatisfaction for all four outcomes are still significant, although somewhat smaller in terms of effect size. In other words, self-esteem partially mediates the effects of parental dissatisfaction in the link between parental dissatisfaction and health and wellbeing across the four outcomes. Observe the example of physical health; the odds ratio of parental dissatisfaction reduces from 168.5% in Model 1 to 137.3% in Model 2, resulting in an 18.5% reduction.

Models 3 in Table 3.3 show the associations between feeling useless and each of the four outcomes, controlling for parental dissatisfaction, age, gender, and financial hardship. In general, higher levels of feeling useless are associated with higher likelihood of having poor physical and mental health, being depressed, and with lower levels of life satisfaction. Take for example the outcome of depression; we see that the odds of being depressed are about 1.944 times greater with one-unit increase in the level of feeling useless. Results also reveal that feeling useless partially mediates the effects of parental dissatisfaction on each link as the odds ratio (coefficient instead for life satisfaction) for

parental dissatisfaction in these models is shrinking compared with previous models (e.g., Models 1), although still significant.

Models 4 in Table 3.3 present the full models where the key independent variable, the two mediators, and covariates are all included. Results show that in Model 4 for depression the presence of both self-esteem and feeling useless completely mediates the effects of parental dissatisfaction on the parental dissatisfaction-depression link, because parental dissatisfaction is no longer significant. For the other three outcomes, the two mediators together partially mediate each link, respectively, as the odds ratio (coefficients for life satisfaction) for parental dissatisfaction is still significant, yet shrinks in terms of magnitude (and even significance level for physical health outcome) compared to previous models (e.g., Models 1, 2, and 3).

Evidence of Mediation: Self-Esteem and Feeling Useless as Individual and Multiple Mediators

Table 3.4 presents the results of mediation analyses for the effect of parental dissatisfaction on each outcome through self-esteem and feeling useless, individually and simultaneously. Since none of the 95% BC CI reported for the indirect effects includes zero, the findings are supportive of mediation by self-esteem and feeling useless individually and simultaneously on the relationship between parental dissatisfaction and each outcome. For instance, simple mediation analysis using PROCESS macro shows that the indirect effect of parental dissatisfaction on each outcome via self-esteem is significant (e.g., take the example of physical health outcome, β = .1637, 95% BC CI=.0677 to .3121; see Figure 3.1a for Ill Physical Health in Table 3.4). Likewise, results

TABLE 3.4

Mediation of the Effect of Parental Dissatisfaction on Physical Health, Mental Health, Depression, and Life Satisfaction via Self-esteem and Feeling Useless, individually and simultaneously (10,000 bootstrap samples)

	Bootstrapping											
	Ill Physical Health						Ill Mental Health					
	Figure 3.1a		Figure 3.1b		Figure 3.1c		Figure 3.1a		Figure 3.1b		Figure 3.1c	
	β (*SE*)	BC 95% CI	β (*SE*)	BC 95% CI	β (*SE*)	BC 95% CI	β (*SE*)	BC 95% CI	β (*SE*)	BC 95% CI	β (*SE*)	BC 95% CI
Self-esteem	.1637 *(.0617)*	.0677 – .3121			.1130 *(.0567)*	.0261 – .2534	.1655 *(.0603)*	.0695 – .3096			.1200 *(.0552)*	.0347 – .2528
Feeling useless			.2111 *(.0713)*	.0983 – .3808	.1733 *(.0668)*	.0701 – .3364			.1787 *(.0645)*	.0770 – .3331	.1378 *(.0609)*	.0445 – .2864

Cont.

	Bootstrapping											
	Depressed						Life Satisfaction					
	Figure 3.1a		Figure 3.1b		Figure 3.1c		Figure 3.1a		Figure 3.1b		Figure 3.1c	
	β (*SE*)	BC 95% CI	β (*SE*)	BC 95% CI	β (*SE*)	BC 95% CI	β (*SE*)	BC 95% CI	β (*SE*)	BC 95% CI	β (*SE*)	BC 95% CI
	.5936 *(.1792)*	.2782 – .9807			.5402 *(.1693)*	.2499 – .9137	-.4212 *(.1602)*	-.8162 – -.1719			-.3114 *(.1417)*	-.6604 – -.0988
			.2989 *(.0963)*	.1372 – .5142	.1813 *(.0800)*	.0605 – .3738			-.4576 *(.1526)*	-.8200 – -.2107	-.3409 *(.1311)*	-.6667 – -.1353

SE = standard error. BC = bias corrected. CI = confidence intervals. All models are controlled for age, gender, and financial hardship.

for multiple mediation analysis are displayed in Figure 3.1c, showing that the indirect effects of parental dissatisfaction on each of the four health outcomes via self-esteem (e.g., take the example of life satisfaction outcome, β = -.3114, 95% BC CI= -.6604 to -.0988) and feeling useless (β = -.3409, 95% BC CI= -.6667 to -.1353) are significant (see Figure 3.1c in Table 3.4 for Life Satisfaction).

Robust Check

Results reported here are robust to alternative specifications of the variables and models involved (not shown). More specifically, in preliminary analysis (results available upon request), I tested many other socioeconomic status variables (e.g., education, occupation before retirement, and total household income) and marriage variables (e.g., marital duration and first marriage or not). I also tested family structure variables (e.g., living arrangement, living preference, number of living children, gender of children, parental bereavement, and perceived family support) as well as neighborhood cohesion scale. None of these variables is significantly related to any of the specified outcomes. In addition, I repeated the preliminary analysis, adding parental dissatisfaction interaction terms with both mediators and three covariates, respectively, and found none of these interaction terms significant. Also, in analysis not shown I estimated models that examined several attitudes toward aging items (e.g., statement such as “Older people are burdens for both family and the society.”) as independent variables, with the intent of testing them as potential mediators between parental dissatisfaction and outcomes and found few significant results and thus do not include them. Lastly, I conducted mediation analysis using Stata’s “ldecomp” command and the results were similar to the results

using PROCESS macro reported here.

Discussion

Using a sample of 432 older Chinese adults aged 60 to 79, the current study examines whether parental dissatisfaction affects multiple health and wellbeing outcomes in conjunction with how psychological assets, such as self-esteem and feeling useless, may explain this posited link in later life. Overall, findings suggest that parental dissatisfaction is significantly associated with poor health and wellbeing, supporting my first hypothesis. Consistent with my second hypothesis, findings demonstrate that self-esteem and feeling useless each is an individual pathway responsible for the associations between parental dissatisfaction and the four outcomes. In line with my third hypothesis, the two mechanisms also contribute to this observed linkage simultaneously, uncovering the multiple psychological mechanisms linking parental dissatisfaction to poor health and wellbeing outcomes and providing empirical evidence for the first time to support such theoretical reasoning in the literature (e.g., Uchino et al., 2012).

Results regarding depression are also consistent with the two U.S. studies (Reczek & Zhang, 2015; Umberson, 1992), confirming that parental dissatisfaction is significantly linked to later life parental depression across cultural contexts, although future research is needed to test the effect of parental dissatisfaction on physical health, mental health, and life satisfaction in other cultures. My findings, however, also indicate that unlike the other three outcomes, depression is quite unique with regard to its relationship to parental dissatisfaction, self-esteem, and feeling useless. For example, in Model 4s (see Table 3.3) where both self-esteem and feeling useless are included to test the coexistence of parallel

pathways, the effect of parental dissatisfaction on depression is totally mediated by the two mediators (self-esteem and feeling useless) and no longer significant. For the other three outcomes this effect is only partially mediated, as the effect of parental dissatisfaction remains significant although shrinking in magnitude. Self-esteem and feeling useless combined seem to wield more weight on depression than parental dissatisfaction. Self-esteem and feeling useless, as psychological resources, are possibly two more important indicators of low psychological adjustment such as depression than parental dissatisfaction. My findings seem to also echo Orth and colleagues' study (2012) utilizing growth curve analyses, in which they indicated that self-esteem has medium-sized effect on the life-span trajectory of depression compared to a very small but significant effect on the trajectory of physical health.

Several limitations in this study should be considered. First, the measure of parental dissatisfaction is based on a single item. Although this measure was used in previous studies (e.g., Reczek & Zhang, 2015; Umberson, 1992) and the respondents in this study were informed that the interviewers were about to "ask your relationship with your children" immediately before asking this single item question, it is possible for participants perceiving this question in different ways and responding accordingly due to the lack of clarity. For example, some participants may respond how they perceived themselves as good or bad parents while others may understand the question as referring to their relationship with their offspring. More precise measures including other questions on parental satisfation that could form a scale should be considered in future studies. Second, although mediation effects are identified in the analyses, the cross-sectional nature of the data limits its utility in explaining causality. Further longitudinal research is

needed to facilitate strong, causal interferences among parental dissatisfaction, psychological resources, and health and wellbeing outcomes. Third, reverse causality and the bi-directionality of the relationships are likely. For example, parental dissatisfaction could be an outcome of life stressors such as poor physical and mental health. It is also possible that the relationship between parental dissatisfaction and psychological mechanisms is reciprocal (Thoits, 2011). Future longitudinal or experimental studies should test these possible dynamics.

Fourth, psychological pathways aside, two other types of pathways (i.e., health behavioral and physiological pathways) may also exist to mediate this observed association (Berkman et al., 2000; Gruenewald & Seeman, 2010), and thus, future research could explore this area. Fifth, neither age nor gender difference in the parental dissatisfaction and health and wellbeing linkage in old age is detected in my study. Given the importance of age and gender differences in later life outcomes, future research should examine this possibility with other data. Finally, although the 2014 FPHS sample is quite similar to Chinese aged 60 to 79 living in townships in terms of sex and education composition revealed in the 2010 Census (National Bureau of Statistics, 2012, Forms 3-1b and 4-1b), future studies with nationally representative data are still needed to test whether the findings would be replicated for the purpose of generalizability.

Despite these limitations, the current study contributes to the literature in the following ways. First, this study is noteworthy in that it discovers that parental dissatisfaction is significantly linked to a range of health and wellbeing outcomes (i.e., physical health, mental health, depression, and life satisfaction) in old age. Another major contribution of this study is the demonstration of the mediating role of psychological

resources linking parental dissatisfaction to poor health and wellbeing outcomes among older adults (Uchino, Bowen, Carlisle, & Birmingham, 2012). This study not only clearly reveals the explanatory mediating role each of the two psychological resources plays in these associations, but it also finds evidence showing the simultaneous coexistence of the two psychological mechanisms underlying these links. To my knowledge, it is the first study in the broader social support literature to test the associations between parental dissatisfaction and a range of health and wellbeing outcomes in later life. It is also the first to test this association in the context of China. In addition, it tests for the first time not only single, but also multiple psychological pathways linking these associations. In doing so this study addresses research questions that are pointed out as important gaps in earlier and recent work (Reczek & Zhang, 2015; Sabatelli & Waldron, 1995; Thoits, 2011; Uchino et al., 2012).

Nonetheless, the use of cross-sectional data to test mediation effects has important implications for intervention despite the lack of evidence on causality (McLaren, Gomez, Gill, & Chesler, 2015). Actually, projects to boost self-esteem in the population have been widely credited as an important intervention goal (Orth & Robins, 2014). Evidence has also shown that meaningful and appropriate social roles interventions (e.g., Retired Senior Volunteers, Park Maintenance Corp, Foster Grandparent Program, Older Mentors for Newer Workers) conducted in developed countries are found to be effective in improving health and wellbeing for older people who carry out the role (Heaven et al., 2013). Older adults in China might also benefit from such interventions to distract them from their parental roles. Further research is warranted to also explore the correlates and/or determinants of parental dissatisfaction in old age in the attempt to locate effective

interventions aimed at reducing parental dissatisfaction directly.

In conclusion, this study adds to our understanding of the parental role and parental health and wellbeing dynamics in later life by identifying the association between parental dissatisfaction and parental health and wellbeing, and by providing evidence of the existence of individual and multiple psychological mechanisms underlying this link to explain why this is so. My findings also suggest that self-esteem and social role intervention projects could be valuable in screening and targeting parentally dissatisfied older adults to enhance their health and wellbeing.

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CHAPTER 4

CORRELATES OF PARENTAL DISSATISFACTION: A STUDY OF LATER-LIFE FAMILY RELATIONSHIPS IN CHINA

Abstract

This study aims to identify the correlates of dissatisfaction in later life parental roles, using multiple children's information from a sample of 432 Chinese respondents (not couples) aged 60 to 79 with a total number of 1,223 adult children. This topic has not yet been examined in the extant literature. Drawing upon major tenets of the symbolic interactionism perspective, the life course perspective, and previous studies on parenting, I test hypothesized elements of a parental dissatisfaction model with five blocks of independent variables including: 1) parental characteristics, 2) family structural characteristics, 3) offspring's characteristics, 4) parental evaluations of relationship quality, interaction and exchange with offspring, and 5) parental belief in offspring's filial obligation. Results indicate that most of the older parents were satisfied in their parental roles. Financial strain, poor health, unhappy with any child's marital status, and having more child-raising problems, however, are associated with parental dissatisfaction. Parentally dissatisfied older parents also reported failing to get along with

at least one child, having at least one child with filial discrepancy, and believing in weaker filial obligation of offspring. Notably, findings show that it is poor relationship quality with every child, rather than unmet expectations regarding interaction and exchange, that is related to parental dissatisfaction.

Introduction

Parental dissatisfaction has been identified to be positively related to a range of health and wellbeing outcomes (e.g., physical and mental health, depression, and life satisfaction) in later life (Reczek & Zhang, 2015; Umberson, 1992; see also Chapter 3 of this dissertation). Much less is known, however, about the correlates of parental dissatisfaction, which may operate differently at the various stages of the parental life course. In a review of parental satisfaction research focusing mainly on parenting young children, Goetting (1986) concluded that "very little can be stated with any degree of certainty regarding satisfaction in the parental role" due largely to "the paucity of research efforts expended in this direction" (p. 101). Twenty-four years after Goetting's review, Mitchell (2010) extended this work to further explore components of midlife parental satisfaction using information from the parent-focal child dyad. She found that income satisfaction, emotional closeness to the study child, parents' main activity (e.g., paid work, retired, or other), health, age, ethnic background, and perceptions of how children "turn out" influence midlife Canadian parents' subjective levels of satisfaction. In light of these developments, which aspects of the parent-adult child ties account for parental (dis)satisfaction in old age remain to date unstudied.

Identifying the correlates of dissatisfaction in later life parental roles is

particularly important and relevant today, not only because of the established importance of parental dissatisfaction to parental health and wellbeing, but also because intergenerational relations (and parent – adult child ties, in particular) become increasingly important in old age (e.g., Bengtson, 2001). Longer life expectancy of both parents and their children are enabling parent and adult children today to share extended "linked lives," a span of time commonly lasting as long as 50 years for the first time in human history (Umberson, 1992). Such extendedly shared lifespans make it possible for longer periods of interactions and increased exchanges of support between generations, as aging parents across the world all rely on family members taking primary responsibility to provide support and care (Angel, 2011). Indeed, empirical studies on parenting adult children have documented that the interdependent life course trajectories of parents and adult children remain an important influence on parental wellbeing across the life course (see Umberson, Crosnoe, & Reczek, 2010 for a review). A better understanding of the correlates of parental dissatisfaction in old age would seem to have implications for the development of strategies to reduce parental dissatisfaction in older populations, which may further enhance older adults' experiences of healthy aging.

Similarly, a dearth of evidence on the correlates of parental dissatisfaction in later life exists in the context of China. The China study holds significance for several reasons. First, China is experiencing rapid population aging, with more than 109 million people aged 65 or older in 2010, more than 228 million in 2030, and 333 million in 2050 according to projections (United Nations, 2010). Second, family support from adult children remains a primary source of support for older adults in China (Shen & Yeatts, 2013), where social welfare and health insurance systems are quite limited and are still

being developed. Third, traditionally in Chinese culture, filial piety – the virtue of respect for, taking care of, and obeying one's parents – has shaped the expectations and behaviors of Chinese families for thousands of years as a central value of family life (Ikels, 2004). Older Chinese adults under the regulation and guidance of filial piety beliefs may have different expectations for the parental role in later life as well as for the interaction and exchange with offspring relative to their counterparts in other cultural contexts. Yet, little attention has been paid in previous studies to the cultural context in which parental roles are experienced (Mitchell, 2010). The current study proposes to fill in these gaps in the literature by identifying the correlates of parental dissatisfaction in old age using a sample of 432 older Chinese parents.

Because no previous research is available, I identify relevant variables that might explain and contribute to parental dissatisfaction in the context of China by drawing upon major tenets of the symbolic interactionism and the life course perspective, and reviewing previous studies of parenting. According to the symbolic interactionism perspective, social roles such as being a parent, a worker, or a friend, are positions or status in the social structure regulated by a set of normative rights and obligations, which give identity, guidance, purpose, and sense of meaning to life through role involvements (Berkman, 2000; Thoits, 1983, 2011). The parental role is ranked at the top of most parents' identity salience hierarchies, higher than their worker role (Thoits, 1992), accounting for a prominent source of identity. The life course perspective (Elder, 1985; Mayer, 2009) emphasizes that development and aging are lifelong processes, and that the lives of parents and children are linked across the life course. An individual member's life influences and is influenced by the types and timings of life events and activities that

other family members experience (Edler, 1985).

In accordance with a merged version of the two perspectives, the parental role represents “a life-long trajectory of shifting demands and responsibilities” (Milkie, Bierman, & Schieman, 2008, p. 87). Unlike most other social roles that have specified durations and clear boundaries, the parental role never ends. It may become even more important in later life because old age is a life phase that frequently brings in negative changes in social roles (Pudrovska, 2009). Older adults, for instance, often face the loss of some salient roles (e.g., the worker role, and possibly, the spouse role) undertaken in earlier adulthood (Orth, Maes, & Schmitt, 2015). At the same time, older parents vary in individual characteristics and resources (e.g., marital status, financial resources, supportive family relationships, and health status) (Mitchell, 2010), which can affect the parental role performance and satisfaction. Since measures of parental characteristics reflect late-life variations in resources, which in turn, can create opportunities and constraints for the parent-adult child relations to influence the risk of parental dissatisfaction. I thus formulate:

> Hypothesis 1: Parental characteristics (age, gender, marital status, financial strain, physical health, and perceived social support from family and friends) are related to parental dissatisfaction.

Likewise, family structure characteristics may create a context that is potentially conducive to the production of parental strain and distress leading to the parental dissatisfaction. Here I theorize the following four dimensions of family structure that are likely to be influential to parental dissatisfaction: living with any child, parental bereavement (the death of a child), number of offspring, and having any daughters. Since

living with aging parents has long been considered a paramount filial behavior for offspring to practice filial piety (Cheng & Chan, 2006; Li, Hodgetts, Ho, & Stolte, 2010), it is possible that not living with any child may contribute to older adults' parental dissatisfaction. Parental bereavement, an "off-time" traumatic experience that could never be expected to occur in a normative life course, is also likely to be related to parental dissatisfaction, as it is found to have a detrimental effect on parents' mental health (Pudrovska, 2009). Some studies have suggested within-family variation in parent-child ties could be related to family size. Logan and Spitze (1996), for example, found that parents with more children had less contact with each individual child. De Oliveira (2013) found that older parents with more children receive more old-age financial transfers, although children with more siblings make smaller transfers to parents. With respect to offspring's gender, longitudinal results indicate that parents of only daughters and of both sons and daughters are more satisfied with relations with their children than parents of only sons (Pushkar et al., 2014). Based on these findings, I formulate my second hypothesis:

> Hypothesis 2: Family structure characteristics (living with any child, parental bereavement, number of offspring, and having any daughters) are associated with parental dissatisfaction.

In the same way, offspring's characteristics may be pertinent to parental dissatisfaction. An unsuccessful adult child who fails in socially desirable roles may affect the parents' psychological outcomes and self-concepts (Umberson et al., 2010) through parental feelings of empathy, by draining the parent's resources, and by representing a parent's failure in the parental role (Knoester, 2003; Milkie et al., 2008).

Research has shown, for instance, that the life course trajectory of the adult child's lack of successes in life domains, such as relationships and careers, are associated with parental disappointment, anger, guilt, and worry (Cichy, Lefkowitz, Davis, & Fingerman, 2013). Another study found that children's problems as teens have long-lasting negative influence on parental wellbeing decades after these experiences occur, providing evidence that early parenting experiences matter for later life outcomes (Milkie, Norris, & Bierman, 2011). I therefore formulate hypothesis 3:

> Hypothesis 3: Offspring's characteristics (parental dissatisfaction in offspring's marital status, in offspring's education, and problems encountered while raising offspring) are related to parental dissatisfaction. I also include ages of offspring (age interval of offspring, and age of the youngest child) in the analyses, following a recent study (Kim, Fingerman, Birditt, & Zarit, 2015).

Furthermore, empirical research on role quality and satisfaction as well as the "linked lives" principle of the life course perspective suggest that parental evaluations of relationship quality and interaction and exchange with offspring could be associated with parental dissatisfaction. Research has shown that the quality of experiences in social roles is more important to psychological outcomes than role occupancy per se, the number of roles, or the amount of time spent in a particular role (Barnett & Hyde, 2001; Thoits, 1992). Also, Krause (1995, 2005) found that negative dimensions of social ties can be a particular source of unhappiness and distress. Ryan and Willits (2007) have further indicated that having a satisfying relationship with adult children, rather than the frequency of parent-child interactions, is significantly related to older people's personal feelings of wellbeing.

In like manner, another major tenet of life course perspective, the "time and place" principle, highlights the fact that individuals' lives are embedded in and shaped by the various historical times (e.g., macro-cultural context) and places (e.g., national or geographic location) in which the family is located (Elder, Johnson, & Crosnoe, 2004). In line with this argument, filial piety – the core value of Chinese family and society – prescribes a set of behaviors and attitudes offspring are expected to obey that guarantees not only feelings of love and respect towards one's parents but also sufficient emotional, physical, and financial support to older parents (Johnson, 1983; Wang, Laidlaw, Power, & Shen, 2010). A child who fails to meet the parent's expectations of filial piety is considered as having filial discrepancy (Cheng & Chan, 2006). It thus would seem reasonable to assume that older Chinese parents naturally expect certain filial behaviors from their offspring and offspring's filial discrepancy would be detrimental to parental wellbeing. Based on these findings and reasoning, I formulate hypothesis 4:

> Hypothesis 4: Parental evaluations of four types of commonly examined variables relative to parent-adult ties are related to parental dissatisfaction, including a) relationship quality with offspring (i.e., getting along with offspring and offspring's filial discrepancy), b) offspring's emotional support (i.e., listening to the parent's problems, and frequency of contact), c) offspring's practical support, and d) offspring's financial support.

Lastly, parental belief in offspring's filial obligations may be related to parental dissatisfaction in later life. Despite filial obligation to one's parents being a moral imperative found in almost all societies (Silverstein, Conroy, & Gans, 2012), the norms governing parental support differ between Western and Chinese cultures, with the former

preferring independence and the latter valuing interdependence (Markus & Kitayama, 1991). Consequently, filial duty in Western cultures is often viewed as the practice of caring for aging parents; while within Confucian culture, it is a much broader belief system (Li et al., 2010). It is likely that such differential cultural norms can affect role quality by way of affecting role practices (Barnett & Hyde, 2001), given that social integration and support may be conditioned upon cultural context (Thoits, 2011). Therefore, I theorize hypothesis 5:

> Hypothesis 5: Parental belief in offspring's weaker filial obligations would be associated with parental dissatisfaction among older Chinese adults.

In summary, the purpose of this study is to identify correlates of parental dissatisfaction in old age using a sample of community-dwelling Chinese older parents (not couples). In designing this study, I build upon a merged version of the symbolic interactionism perspective and the life course perspective, and previous studies related to parenthood to hypothesize elements of a parental dissatisfaction model with aforementioned five blocks of potentially influential covariates.

Methods

Data and Sample

Data were drawn from the 2014 Filial Piety and Health Survey (2014 FPHS) that was conducted between June and August 2014 employing face-to-face interviews with a sample of 432 older people in Linxi County, a traditionally agricultural county located in the Inner Mongolia Autonomous Region of northern China. The Institutional Review Board at the University of Utah approved the project in May 2014 (IRB: 00067618). The

2014 FPHS is a unique data set specifically designed for examining parent-adult child relationships and Chinese older adults' health and wellbeing, with particular attention being paid to a series of questions regarding the continuity and change in the practice of filial piety. It is rich in a variety of detailed measures related to various dimensions of parent-adult child ties across multiple children such as relationship quality, interaction, and exchange (e.g., quantity, and equity; emotional, practical, and financial exchange) discussed in the literature.

The 2014 FPHS sample was drawn from forty-five neighborhoods within seven community centers of the two subdistricts of the county seat and a township (a subdistrict is the equivalent of a township). The selection criteria included participants who were 60 to 79 years old, apparently cognitively capable of answering questions, from different households (not couples), and had at least one living child.

Procedures

The source of the sample was the electronic resident roster kept in the computer system of each community center that records itemized demographic information of all household members in each household within all neighborhoods under its governance. At each participating community center, a community staff contacted eligible respondents and had the information about the survey explained to them. Of the 464 eligible respondents that were contacted, 432 completed the face-to-face interview, yielding a response rate of 93%. The high response rate is largely attributable to the strong collaboration and support from local governing subdistricts and community centers.

A team of three trained interviewers and I conducted all face-to-face interviews

using a standard questionnaire. I recruited and trained the three interviewers and none of them was community staff. Interviews were conducted mostly at community centers (or rarely at the respondents' homes), without the presence of persons other than the respondent and the interviewer. The duration of each interview varied from one hour and a half to two hours and a half. Filling in the questionnaire counted as informed consent to participate in the study. Participants received ¥50 ($7.60) on completion of the interview.

Dependent Variables

Parental dissatisfaction[2] is the dependent variable, based on the first question on the *Relationship and Exchange with Children Section* of the standard questionnaire. Before asking this question, interviewers read the following sentences to each interviewee: "Next we'll move into the *Relationship and Exchange with Children* section. Questions in this section are to ask your relationship with your children." Then the interviewers paused a second and asked the first section question: "All in all, on a scale of 1-6 with 1 being '*not at all satisfied*' and 6 being '*extremely satisfied*,' how satisfied are you with being a parent?"

Responses were highly skewed to "*very*" or "*extremely*" satisfied (n = 280, 64.81%), with the rest of responses containing less satisfactory options from "*not at all satisfied*" to "*somewhat satisfied.*" As such, parental dissatisfaction is dichotomized into "*very/extremely satisfied*=0" and "*somewhat dissatisfied*=1", to deal with its highly

[2]Among others, a similar one-item measurement was used as the dependent variable by Mitchell (2010, p. 330) that asked the respondents: "Taking everything into consideration, on a scale of 1-5 with 1 being 'not at all happy' and 5 being 'extremely happy', how would you say things are for you today as a parent?"

negatively skewed distribution.

Independent Variables

Independent variables were grouped into five blocks. *Parental characteristics* included five variables: parental age (measured as a continuous variable), gender (1=*female*, 0=*male*), marital status (1=*married*, 0=*widowed* or *divorced*), financial strain, physical health, and perceived social support from family and friends. Financial strain was measured by asking, "How well does your present household income take care of your needs and the needs of your family?" Response options range from 1 (*poorly*) to 3 (*very well*). It was dichotomized into a dummy variable to indicate whether the respondent experienced financial strain (1=*poorly*) or not (0=*fairly* or *very well*). Physical health was assessed using a single item measure asking respondents, "How do you rate your overall physical health on a 5-point scale ranging from 1 (*excellent*) to 5 (*poor*) these days?" Responses were collapsed into a dichotomous one (1=*fair* or *poor*; 0=*excellent*, *very good*, or *good*) to address its skewedness. Perceived social support from family and friends was measured by the 8-item family and friends support subscale of the Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet, Dahlem, Zimet, & Farley, 1988). Respondents were instructed to rate their agreement level using a 7-point scale ranging from 1 (*very strongly disagree*) to 7 (*very strongly agree*) with eight statements, such as "My family really tries to help me" and "I can talk about my problems with my friends." The items were aggregated with higher scores indicating a higher level of perceived social support from family and friends ($\alpha = 0.85$).

Family structural characteristics included four variables: living with any child

(1=*living with any child*, 0=*no coresiding child*), parental bereavement (1=*the death of any child*, 0=*no*), number of living offspring, and gender composition of offspring (1=*have any daughter*, 0=*no daughter*). *Offspring characteristics* included age composition of offspring (measured by the age interval between the eldest and youngest child, and the age of the youngest child), parental satisfaction with offspring's marital status and education, respectively, and problems encountered while raising offspring. Respondents were asked to rate their satisfaction levels toward each child's marital status on a 7-point scale ranging from 1 (*extremely dissatisfied*) to 7 (*extremely satisfied*). Results has shown that parental reports of relationships with adult children were skewed positively, with 67.36% of respondents reported being satisfied with all children's marital status and only 7.18% reported being dissatisfied with all children's marital status. Dyadic responses of the parent's rating to each child were therefore combined across multiple adult children to create a dichotomous variable to address the positive skew: 1=*satisfied with all children's marital status* (each child had a score of 6 or 7), and 0=*dissatisfied with any child's marital status* (at least one child had a score of 1-5). Parental satisfaction with offspring's education was measured and constructed in a similar way: 1=*satisfied with all children's education* (each child had a score of 6 or 7), and 0=*dissatisfied with any child's education* (at least one child had a score of 1-5). Problems encountered while raising offspring were examined with a single question that asks: "Thinking of your experiences as a parent, how would you compare yourself with other parents who have children about the same age as yours? Would you say you have had: 1 *fewer problems than other parents*, 2 *about the same*, and 3 *more problems*?" Responses were collapsed into a dichotomous variable (1=*same or more problems*;

0=*fewer*). This variable was considered a composite as the question asks respondents to think of offspring as a whole rather than a single child.

Parental evaluations of relationship quality, interaction and exchange with offspring included evaluations of relationship quality (getting along with offspring, and offspring being filial), offspring's emotional support (offspring listening to the parent's problems, and offspring's frequency of contact), practical support, and financial support. Getting along with offspring was measured via a question asking: "Overall, how well do you and each child get along together at this point in your life using a 4-point scale ranging from 1 (*not at all well*) to 4 (*pretty well*)?" Parents' rating to each child were combined across multiple adult children and collapsed into a dichotomous variable to address the positive skew: 1=*getting along with all children* (each child had a score of 4), and 0=*not getting along with any child* (at least one child had a score of 1-3). Offspring filial discrepancy was assessed by a single question asking the respondent: "How filial is each of your children rated using a 7-point scale ranging from 1 (*extremely unfilial*) to 7 (*extremely filial*)?" Likewise, a dichotomous variable was created to address the positive skew for offspring filial discrepancy: 1=*all children being filial* (each child had a score of 6 or 7), and 0= *any child with filial discrepancy* (at least one child had a score of 1-5).

Respondents were also asked to rate to what extent each of their children's behaviors and activities met their expectation in terms of "listening to your problems," "maintaining contacts," "providing practical assistance," and "providing financial assistance" using a 5-point scale ranging from 1 (*far below expectation*) to 5 (*well beyond expectation*). Similarly, parents' rating to each child were combined across multiple adult children and collapsed into four dichotomous variables to address the positive skew for

each variable: 1=*all children met or beyond expectation* (each child had a score of 4 or 5), and 0= *any child below expectation* (at least one child had a score of 1-3).

Parental belief in offspring's filial obligation was assessed by six items that measure an individual's perception of offspring's filial obligation toward aging parents who are in need. The six items ask: "How much responsibility should adult children with families of their own have to 1) provide companionship; 2) help with household chores (and/or provide transportation); 3) listen to the problems and concerns of older parents and provide advice and guidance; 4) provide for the personal and health care needs; 5) provide financial support; and 6) provide housing for older parents who are in need?" Responses were rated along a 5-point scale ranging from 1 (*none*) to 5 (*total*). The items were aggregated with higher scores representing belief in greater filial obligation from offspring (α = 0.82).

Noticeably, I transformed some parent-child relationship variables (e.g., parental dissatisfaction, parental satisfaction with offspring's marital status and education, and parental evaluations of relation quality, interaction and exchange with offspring) into binary measures to address their highly skewed distributions. The found skewed distributions aside, the following perspectives help theoretically justify the use of these variables as binary measures: First, research has shown that older parents are more likely to report greater affection for and closeness to their adult children than their descendants did for them, because older generations invested more resources in the younger generations than vice versa (Swartz, 2009). Second, social desirability bias explains that people have a tendency to report what is socially acceptable or expected rather than their real sentiments. Third, from the perspective of dissonance theory (Secord & Backman,

1974), parents report high satisfaction in the parent-child relationships in spite of the presence of deleterious relationships with children because they respond to an attitude adjustment consistent with their earlier decision to have children.

Statistical Analysis

I first calculated descriptive statistics for measures employed. Next, I run hierarchical logistic regression models to examine the influence of each of the five sets of explanatory variables on parental dissatisfaction in later life. Blocks of variables were sequentially entered into five models, starting from the six parental characteristics variables. Model 2 added four family structure characteristics variables into Model 1. Model 3 incorporated a set of five offspring characteristics variables into Model 2. Model 4 added six variables into Model 3 regarding parental evaluations of relationship quality, interaction and exchange with offspring. Finally, Model 5 represents the full model that was formed by adding the measure of parental belief in offspring's filial obligation into Model 4. All analyses were performed using Stata/MP 13.1.

Results

Sample Description

Table 4.1 presents a description of the variables analyzed. The sample is composed of 432 older adults with a mean age of 66.24 years (range 60-79; *SD*=5.00), moderately evenly split between men and women (44.68% and 55.32% respectively). The majority of the respondents were married (77.08%), experienced no financial strain (60.42%), and reported having poor physical health (63.89%). Slightly more than one-

TABLE 4.1

Descriptive Statistics of Variables Analyzed (N=432)

Variables	Range	M (SD)	%
Parental dissatisfaction (ref.=satisfaction)	0 – 1		35.19
Parental characteristics			
Age	60 – 79	66.24 (5.00)	
Female (ref.=male)	0 – 1		55.32
Married (ref.= widowed/divorced)	0 – 1		77.08
Financial strain (ref.= no)	0 – 1		39.58
Poor physical health (ref.=good)	0 – 1		63.89
Perceived social support from family and friends [a]	16 – 56	42.90 (7.15)	
Family structure			
Living with any child (ref.= none)	0 – 1		33.56
Parental bereavement (ref.= no)	0 – 1		8.56
Number of living offspring	1 – 8	2.83 (1.17)	
1			9.26
2			35.19
3			31.02
4 or more			24.54
Any daughter (ref. =none)	0 – 1		81.71
Offspring's characteristics			
Age interval of offspring	0 – 25	5.70 (3.76)	
Age of the youngest child	23 – 52	37.77 (5.32)	
Dissatisfied with any child's marital status (ref.= none)	0 – 1		32.64
Dissatisfied with any child's education (ref.=none)	0 – 1		53.70
Equal amount of or more problems while raising offspring (ref.= fewer)	0 – 1		33.80
Evaluation of relationship quality, interaction and exchange with offspring			
Evaluation of getting along with offspring	0 – 1		
Getting along with all (a score of 4) (ref.)			70.60
Not getting along with any child (1-3)			29.40
Evaluation of offspring's filial discrepancy	0 – 1		
All filial (a score of 6 or 7) (ref.)			80.56
Any child with filial discrepancy (1-5)			19.44
Evaluation of offspring listening to the parent's problems	0 – 1		
All met or beyond expectation (a score of 4 or 5) (ref.)			69.91
Any child below expectation (1-3)	0 – 1		30.09
Evaluation of offspring's frequency of contact	0 – 1		
All met or beyond expectation (a score of 4 or 5) (ref.)			70.14
Any child below expectation (1-3)			29.86
Evaluation of offspring's practical support	0 – 1		
All met or beyond expectation (a score of 4 or 5) (ref.)			59.26
Any child below expectation (1-3)			40.74
Evaluation of offspring's financial support	0 – 1		
All met or beyond expectation (a score of 4 or 5) (ref.)			72.69
Any child below expectation (1-3)			27.31
Parental belief in offspring's filial obligations [a]	1 – 5	3.95 (.77)	

[a] Higher scores indicate greater levels of variables, respectively.

third of the respondents reported being dissatisfied as a parent (35.19%), living with a child (33.56%), and having the same amount of or more problems than other parents while raising their children (33.80%).

The 432 respondents had 1,223 adult children (range 1-8, mean=2.83, *SD*=1.17). About 9.26% had one child, a little more than one-third (35.19%) had two children, almost another one-third (31.02%) had three children, and near one-quarter (24.54%) had four or more children. A small portion experienced parental bereavement (8.56%) and the vast majority had at least one daughter (81.71%). Near one-third were dissatisfied with at least one child's marital status (32.64%) and 53.70% were dissatisfied with at least one child's education. With regard to age composition of offspring, the mean age interval was 5.70 (range =0-25, *SD*=3.76), and the mean age of the youngest child was 37.77 (range =23-52, *SD*=5.32).

The majority of respondents were getting along with all children (70.60%) and rating all children without filial discrepancy (80.56%). The percentages of older respondents who reported unmet interaction and exchange expectations with at least one child regarding "listening to the parent's problems," "frequency of contacts," "practical supports," and "financial supports" were 30.09%, 29.86%, 40.74%, and 27.31%, respectively. These statistics clearly indicate that parents' evaluations of relationship quality, interaction and exchange with adult children are positively skewed. In addition, the mean scores were 42.90 (range 16-56; *SD*=7.15) for perceived social support from family and friends, and 3.95 (range 1-5, *SD*=. 77) for parental belief in offspring's filial obligation.

Correlates of Parental Dissatisfaction

Table 4.2 displays the results for logistic regression models in which parental dissatisfaction is regressed on each of the five blocks of independent variables sequentially. In the first model, two variables exhibit a statistically significant relationship with parental dissatisfaction: financial strain and poor physical health Specifically, compared with respondents who had no financial strain, respondents who experienced financial strain had a 63.5% increase in the odds of being parentally dissatisfied. And respondents who reported themselves as in poor physical health were considerably more likely than those in good health to report being dissatisfied in the parental role (odds ratio = 2.665). In the second model, four family structural characteristics variables are entered, yet none of them appears to play a significant role in determining parental dissatisfaction. The overall model, however, remains statistically significant ($\chi^2 = 58.58$, $p < .001$).

The third model adds five variables of offspring's characteristics, and two of them are associated significantly with being dissatisfied in the parental role. For example, the odds of being a dissatisfied parent are about 1.857 times greater for older adults who were dissatisfied with at least one child's marital status compared with those who were dissatisfied with none. And those reported having an equal amount of or more problems compared with other parents while raising their children were more likely to be dissatisfied as a parent than those who reported having fewer problems (odds ratio =

TABLE 4.2

Odds from Logistic Regression of Parental Dissatisfaction (N=432)

Variables	Parental Dissatisfaction				
	Model 1	Model 2	Model 3	Model 4	Model 5
Parental characteristics					
Age	0.979	0.996	1.013	0.979	0.958
Female (ref.=male)	0.873	0.914	0.844	0.789	0.751
Married (ref.=widowed/divorced)	1.050	1.068	1.004	0.878	0.708
Financial strain (ref.=no)	1.635*	1.585*	1.588*	1.712*	1.700*
Poor physical health (ref.=good)	2.665***	2.673***	2.512***	2.375**	2.204**
Perceived social support from family and friends [a]	0.984	0.981	0.988	1.008	1.015
Family structure					
Living with any child (ref.=no)		1.142	1.010	0.948	0.997
Parental bereavement (ref.=no)		0.659	0.674	0.601	0.529
Number of living offspring					
1 (ref.)					
2		1.101	1.242	0.964	0.875
3		0.691	0.741	0.402	0.363
4 or more		0.935	1.003	0.591	0.539
Any daughter (ref.=none)		0.718	0.698	0.813	0.733
Offspring's characteristics					
Age interval of offspring			0.972	0.971	0.989
Age of the youngest child			0.968	0.964	0.979
Dissatisfied with any child's marital status (ref.= none)			1.857**	1.181	1.192
Dissatisfied with any child's education (ref.=none)			1.252	1.008	0.970

TABLE 4.2 *Cont.*

Variables	Parental Dissatisfaction				
	Model 1	Model 2	Model 3	Model 4	Model 5
Equal amount of or more problems while raising offspring (ref.=fewer)			2.036**	1.890*	1.892*
Evaluation of relationship, interaction and exchange with offspring					
Evaluation of getting along with offspring				2.224**	2.139*
Evaluation of offspring's filial discrepancy					
All filial (a score of 6 or 7) (ref.)					
Any child with filial discrepancy (1-5)				3.360***	3.775***
Evaluation of offspring listening to the parent's problems					
All met or beyond expectation (a score of 4 or 5) (ref.)					
Any child below expectation (1-3)				1.164	1.088
Evaluation of offspring's frequency of contact					
All met or beyond expectation (a score of 4 or 5) (ref.)					
Any child below expectation (1-3)				1.271	1.172
Evaluation of offspring's practical support					
All met or beyond expectation (a score of 4 or 5) (ref.)					
Any child below expectation (1-3)				1.313	0.941
Evaluation of offspring's financial support					
All met or beyond expectation (a score of 4 or 5) (ref.)					
Any child below expectation (1-3)				1.111	1.191
Parental belief in offspring's filial obligation [a]					0.505***
Overall model χ^2	30.070***	36.630***	58.580***	105.530***	121.820***
df	6	12	17	23	24

[a] Higher scores indicate greater levels of variables, respectively. *P<. 05; **P<. 01; ***P<. 001.

2.036).

The fourth model enters six variables regarding parental evaluations of relationship quality, interaction and exchange with offspring. Among them, only two variables are significantly related to parental dissatisfaction. Not getting along with at least one child and having at least one child with filial discrepancy are associated with higher likelihood of being parentally dissatisfied compared with their reference groups (odds ratio = 2.224 and 3.360, respectively). Once variables representing relationship quality, interaction and exchange with offspring are added to the model, the parental satisfaction with offspring's marital status variable become nonsignificant, suggesting that the influence of this variable on the dependent variable is mediated by these newly added variables.

The fifth model represents the full model with the addition of one measure of parental belief in offspring's filial obligation. The coefficient of 0.505 implies that a one unit change in parental belief in offspring's filial obligation results in a 0.505 unit change in the log of the odds of reporting being dissatisfied as a parent. In other words, the stronger the belief in the offspring's filial obligation, the less likely for the respondent to be parentally dissatisfied.

Robust Check

Results reported here are robust to alternative specifications of the variables and models involved. More specifically, in preliminary analysis (results available upon request), I tested seven other parental characteristics variables (e.g., religion, Hukou status, education, occupation before retirement, total household income, care-provision to

spouse, and depression as indicator of health), three other family structural variables (e.g., whether the parent's parents were alive or not, whether the parent had a grandchild or not, and whether the parent lived in a multiple-generation household or not), four other offspring's characteristics variables (e.g., any unmarried child, any child living far way, any child with no children of their own, and being dissatisfied with any child's behaviors), and eight other relationship quality, interaction and exchange variables (e.g., offspring being close to the parent, offspring being proud of their parent, offspring sharing similar views with their parent, the total amount of hours of practical support to and from the parent, respectively, the total amount of money for financial support to and from the parent, respectively, whether the parent provided care for a grandchild or not) as well as two relationship equity variables (e.g., whether the parent provided more or received more or was equally giver and receiver in terms of financial and practical support, respectively). None was significantly related to the dependent variable.

In addition, I repeated the preliminary analysis using different combinations of gender composition of offspring (e.g., all sons, all daughters, and mixed genders) and different variables representing age composition of offspring (e.g., age of the eldest child) and found none of them significant. Lastly, I estimated models that examined several attitudes toward aging items (e.g., a statement such as "Older people are burdens for both family and the society.") as independent variables, and none was significant.

Discussion

This study identifies the correlates of parental dissatisfaction in old age by examining a broader range of independent variables related to parent-adult child ties

organized into five blocks (models), using information from multiple parent-adult child dyads of a sample of 432 older Chinese adults aged 60 to 79 with a total number of 1,223 adult children. Results indicate that most older adults reported being satisfied in their parental roles, and that partial support is found for the expected associations between independent and dependent variables. Specifically, financial strain, poor health, being dissatisfied with any child's marital status, and having more child-raising problems, are associated with parental dissatisfaction. Parentally dissatisfied older parents also reported failing to get along with at least one child, having at least one child with filial discrepancy, and believing in weaker filial obligation of offspring. These findings remain robust across models with the exception of "being dissatisfied with at least one child's marital status" that loses its significance after the fourth block of variables are entered.

In general, findings of this study are consistent with major tenets of the symbolic interactionism perspective, the life course perspective, and previous studies of parenting, demonstrating that the parental role in later life is embedded in the cultural context being affected by family trajectories of "linked lives." Some variables are not found to be associated with parental dissatisfaction, though. For example, gender does not emerge as a significant contributor. This finding is, however, in line with research by Logan and Spitze (1996), who argued that gender is not necessarily a straightforward differentiating factor in parent-child ties because adult children could be a source of distress for both mothers and fathers. A similar argument may also be applicable to explain why age and marital status are also not significant. With regard to the variable of perceived social support from the family and friends, its influence may fade in old age, since older people tend to have smaller social networks (Carstensen, 1995) and are often less engaged in the

community (Fast & De Jong Gierveld, 2008) than in midlife, a trend that may render this variable less relevant to parental role in late adulthood.

Interestingly, family structure variables (living with any child, parental bereavement, number of living children, and having any daughter) do not appear to play a significant role in determining parental dissatisfaction in later life. These results are consistent with Western research that reveals neither living with any child (e.g., Mitchell, 2010) nor number of children (e.g., Ryan & Willits, 2007) is significantly related to parental outcomes, though. These results imply that the influence of such family structure variables may begin to converge across cultural contexts. In addition, findings of parental evaluations of emotional, practical, and financial support are not significantly associated with parental dissatisfaction. This fact is also congruent with research that has shown no or only weak associations between frequency of contact and exchanges of assistance and parental wellbeing (e.g., Lowenstein, Katz, & Gur-Yaish, 2007; Umberson, 1992), suggesting parents' filial expectations in these dimensions may become less important even in contemporary China.

This study has limitations that provide directions for future research. First, although the 2014 FPHS sample is not unusual of the Chinese aged 60 to 79 living in townships in terms of sex and education composition according to the 2010 Census (National Bureau of Statistics, 2012, Forms 3-1b and 4-1b), future studies with nationally representative data are still needed to ascertain its generalizability. Future research could also explore the definition of "a *filial* child" among older Chinese adults to detect the dimensions of this concept. Second, although the cross-sectional analyses provide an initial portrait of the dissatisfied older parents, longitudinal analyses are needed as

components of parental dissatisfaction and quality of parent-adult child relationships may change over time even in the later stage of life course. Third, a reciprocal relationship between parental dissatisfaction and self-rated physical health is clearly identified in this sample, as evidenced in Chapter 3 where parental dissatisfaction is found to be related to physical health. It is impossible for me, however, to detect the causal inference between parental dissatisfaction and physical health in our cross-sectional data set. Additional studies using longitudinal design are needed to clarify this situation.

Despite the limitations, this study is the first to identify the correlates of parental dissatisfaction in later life. It examines, in the context of China, a broader range of variables regarding parent – adult child ties across multiple children. A particular strength of this study is the collection and use of the 2014 FPHS data that offer an unusual variety of measures about relationship quality and interaction and exchange with each adult child in the same family. The 2014 FPHS provides me a rare opportunity to go beyond the commonly used parent – focal child dyad or aggregated measures viewing children as a composite to perform a comprehensive examination of parent-adult child ties across multiple children. Consequently, my findings reveal that satisfaction with relationship quality with all adult children (e.g., getting along with all offspring, and rating all offspring without filial discrepancy), more so than the availability or quantity of support and exchange with offspring (e.g., evaluations of offspring's emotional, practical, and financial supports), appears to be most important in relation to parental dissatisfaction in later life. Therefore, the fundamental factors that contribute to parental dissatisfaction may lie not in dimensions of support and exchange with the focal child or children as a composite; rather, they may lie in the relationship quality per se across multiple offspring

as each child matters for parental outcomes. Future work using data from different countries is warranted to further test these variables to replicate my findings.

Nonetheless, findings of this study have implications for the development and implementation of appropriate interventions aimed to reduce parental dissatisfaction. For example, widening the coverage of social security in old age may help reduce dissatisfaction in the parental role, as financial strain is significantly related to parental dissatisfaction, and respondents who reported having financial strain were more likely to lack social security in this study ($\chi^2 = 28.00$, $p < .001$). Likewise, government funded family-strengthening programs aiming to enhance the quality and stability of the relationships with children – mainly focusing on parents with a young child with behavioral problems (e.g., Kumpfer, Pinyuchon, de Melo, & Whiteside, 2008) – might be extended to help improve parent-adult child ties in later life, as getting along with all adult children reduce the dissatisfaction in the parental role among older adults. Specifically, for Chinese practitioners, such educational intervention programs should pay particular attention to understanding the life histories, filial piety expectations, and values of both generations, since having any child being rated less filial and believing in weaker filial obligations of offspring contribute to parental dissatisfaction.

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CHAPTER 5

OFFSPRING'S FILIAL DISCREPANCY AND PARENTAL DEPRESSION: A MIXED-METHODS STUDY

Abstract

Using quantitative and qualitative data from a sample of 432 older Chinese parents (not couples) aged 60 to 79 with 1,223 offspring, this mixed-methods study 1) examines the association between offspring's filial discrepancy and parental depression; and 2) explores the personal meaning of filial piety from the perspective of these older parents to detect the continuity and change in the perceptions of and expectations about offspring's filial piety. Results from logistic regression indicate that filial discrepancy is significantly associated with parental depression, net of age, gender, financial strain, social support, and health status. Qualitative findings reveal that traditional filial piety values are fading even in one of the least developed Chinese counties, identifying six broad themes that reflect the coexistence of traditional and modern filial values in relation to the participants' definition of "a filial child." These themes represent traditional filial piety values in a much diluted form, filial piety values that converge with filial obligations in Western cultures, and traditional filial piety beliefs in the absolute form, highlighting the complexity and evolution of the concept of filial piety. Findings

illuminate the importance of examining parental perceptions of and expectations about offspring's filial piety as part of the broader efforts in understanding the influence of cultural factors on depression variations in old age. It is imperative to explore strategies to negotiate unmet filial expectations between generations in order to enhance the older generation's wellbeing by reducing offspring's filial discrepancy.

Introduction

As one of the most common mental health problem in older adulthood, depression has been linked to cognitive decline, disability, the presence of other medical conditions, and mortality (see Fiske, Wetherell, & Gatz, 2009; Rodda, Walker, & Carter, 2011 for reviews). Late-life depression is, from a lifespan developmental diathesis-stress perspective, developed as the result of interplay between risk and protective factors (Fiske et al, 2009). Broad categories of risk factors, such as female gender, financial strain, poor health status, deficits in social support, and a diminishing social network, have been identified as being associated with depression among older adults (e.g., see Chen, Hicks, & White, 2012 for a review). Likewise, protective factors identified include, but are not limited to, finding meaning and purpose in life, enjoying positive social support, and engaging in social activities as well as other life events with positive outcomes (e.g., Schwarzbach, Luppa, Forstmeier, König, & Riedel-Heller, 2014; Zhang & Chen, 2014).

Among various risks and protective factors of late-life depression, cultural factors represent a very important yet understudied category, especially in the context of China, where the distinctive Confucian culture featuring the concept of filial piety are still

upheld. Recent work pointed to the importance of additional well-designed studies to identify more culture-specific contributors of depression in order to enhance wellbeing among older Chinese adults (Chen et al., 2012). In response to this request, the current study investigates the influence of offspring's filial piety (filial discrepancy) on parental depression and also explores the personal meaning of filial piety from the perspective of these older parents, employing a mixed-methods approach.

Filial piety (Chinese character: 孝, *xiao*), as a central value of family life, has shaped the expectations and behaviors of Chinese families for thousands of years (Ikels, 2004). It was neither a singular concept nor the product of a single intellectual trend even in early China (Radice, 2006). Rather, filial piety is a multidimensional construct, representing a range of beliefs and behavioral guidelines that regulate offspring's attitudes and behaviors toward their parents, such as respecting, loving, and obeying one's parents as well as providing care and support. The practices and expectations of filial piety have changed through time and have varied regionally across China (Miller, 2004). Moreover, such norms are still constantly changing and evolving (Wang, Laidlaw, Power, & Shen, 2010) in contemporary China, where dramatic demographic changes, rapid modernization and urbanization, and frequent changes in state regulations continue to play a large role in family life (e.g., Luo & Zhan, 2012; Zhan, Feng, & Luo, 2008). As a result, although traditional filial piety teachings demand children's devotion or even sacrifice to service the parents to fulfill their material, emotional, and physical needs, the meaning of associated practices and expectations of filial piety has been continuously reinterpreted and renegotiated in various ways over time (Qi, 2015). Some traditional tenets of filial piety such as reliance on sons for old age support and living with an adult

child's family, for example, are no longer popular practices of filial piety (Cheng & Chan, 2014).

As a multi-faceted, constantly evolving concept, there is no consensus on the operational definition or measurement of filial piety (or filial discrepancy) in the literature; different researchers use various dimensions of filial piety to measure it (Kim, Cheng, Zarit, & Fingerman, 2015). For instance, some studies have referred to actual or expected behaviors and practices of filial piety (e.g., Cheng & Chan, 2006). Others have assessed actual or expected attitude or beliefs of filial piety using the Filial Piety Scale (e.g., Ng, Bhugra, McManus, & Fennell, 2011) or adherence to Chinese tradition scale (e.g., Mjelde-Mossey, Chi, & Lou, 2006). Still others measured filial piety or filial discrepancy by asking the respondents to rate the levels of their offspring's filial piety directly using a single question (e.g., Li et al., 2011; Mao & Chi, 2011).

Moreover, *xiao* 孝, could be used as either an adjective (literally, *filial* or *pious* – not commonly used) or noun (literally, *filial piety*) in contemporary Chinese (Luo & Zhan, 2012). As an adjective, *xiao* (being *filial*) is used to evaluate whether or not a person's filial behaviors and attitudes meet normative filial piety expectations. For example, a person's behaviors and attitudes toward the parents might be perceived as *xiao* (being *filial*) or no/not *xiao*" (being *unfilial* or less than *filial* or *impious*) or more *xiao* (more *filial*) or less *xiao* (less *filial*) by the parents, the neighbors, or the community. An individual who is perceived as *xiao* (as an adjective; *filial*) indicates that s/he has successfully behaved in ways consistent with the cultural expectations of *xiao* (as a noun; *filial piety)* and is considered a person of merit. In contrast, an individual who is perceived as *unfilial* or less than *filial* implies s/he has at least partially failed to meet the

cultural expectations of *xiao* (*filial piety*) and is considered a person lacking of merit. An *unfilial* or less than *filial* person is subject to sanction by family, community, and even the state (Luo & Zhan, 2012). Learning to be a *filial* child is thus "the essential first step toward being socialized to be an acceptable adult member of society" (Ho, Xie, Liang, & Zeng, 2012, p. 40) and enjoying offspring's filial piety is "a matter of course" for Chinese parents (Wang et al., 2010, p.23). In this regard, filial discrepancy, referring to the subjective perception by the parent of the gap between the parent's expectations of filial piety and offspring's actual practice of filial piety (Cheng & Chan, 2006), has important implications for older Chinese parents' health and wellbeing (e.g., Cheng & Chan, 2006; Mao & Chi, 2011). Accordingly, being *unfilial* or less than *filial* or *impious* means a lack of filial piety in Chinese culture, representing the presence of filial discrepancy that could be detrimental to parental wellbeing (parental depression in particular) due to the following reasoning.

First, from the stress-process perspective that considers life stressors as risk factors in depression (Mazure, 1998), offspring's filial discrepancy could be viewed an ongoing chronic stressor present in the older parent's daily life, as a violation of a parent's normative cultural expectations for the child. Stronger than an acute stressor in terms of predicting depressive symptoms (Hammen, 2005), a chronic stressor such as offspring's filial discrepancy is particularly threatening to the wellbeing of older Chinese parents. Second, from a life-course perspective, the parental role represents "a life-long trajectory of shifting demands and responsibilities" (Milkie, Bierman, & Schieman, 2008, p. 87). The parental role might become even more important relative to other roles as individuals transition into old age, when the loss of other salient roles or a decline in role

involvement in certain roles (Orth, Maes, & Schmitt, 2015) are expected. Older parents who perceived their adult children having filial discrepancy might be more likely to engage in self-critical thoughts that view their parental role as a failure. Moreover, given the great value of filial piety in the Chinese culture, offspring's filial discrepancy may heighten parental feelings of social stigma, which in turn might elevate the risk for depression by reducing parental self-esteem and self-worth. My own findings from the same data set lend some support to this argument: The majority of the respondents (66.44%) agreed with the statement that "Having an *unfilial* child represents parenting and family failure for the older parents, making them lose face," compared with those who disagreed (20.83%) or were neutral (12.73%).

Third, family therapy theories suggest that problems occurring within one family relationship could drain other family relationships (Doherty & Baptiste, 1993). From this point of view, one child's filial discrepancy might also influence parental wellbeing indirectly by jeopardizing the positive interactions between the parent and the spouse or other children of the parent. Therefore, a single stressor such as a child with filial discrepancy might create additional stressors and lead to a stress proliferation process that could in turn further hazard the parent's health and wellbeing (Pearlin, Aneshensel, & Leblanc, 1997).

Despite the significance of filial piety in the Chinese culture and its potential influence on parental health and wellbeing, only two studies have *directly* examined the linkage between filial piety and depression among older Chinese adults, employing two different measures of filial discrepancy. The first study, measuring filial discrepancy by asking participants to rate the degree to which their children met their expectations in

terms of a set of filial behaviors, was conducted using a convenience sample of 164 relatively healthy older Chinese adults aged 60 or older in Hong Kong (Cheng & Chan, 2006; p. 263). It found that filial discrepancy is associated with depression (measured by a four-item Geriatric Depression Scale), controlling for sociodemographic variables, financial strain, and functional health. The second study, measuring filial piety as *very pious*, *fairly pious*, and *impious* based on the perception of participants, examined risk factors for depression using data collected in 2006 from a random sample of 1,921 adults aged 60 years and older in Beijing (Li et al., 2011). *Impious* offspring was found to be one of the risk factors for depression (measured by the 15-item Geriatric Depression Scale).

Although noteworthy for their different approaches of operationalizing the concept of filial discrepancy in empirical research, the two studies have several limitations. First, both studies were based on samples drawn from the most developed areas of China (i.e., Hong Kong and Beijing). Virtually no empirical evidence, however, has been reported from older Chinese parents living in less or the least developed areas, where the practices of and expectations for filial piety may be different from the much more developed parts of the country. Second, despite the fact that extant literature on depression has identified positive social support from various sources or social relationships as protective factors (e.g., Chen et al., 2012); the two studies have not addressed the role of social support. Third, neither study has investigated filial piety across multiple children where there was more than one child in the family. The effect of parental ratings of offspring's filial discrepancy across multiple adult children on parental depression remains unstudied. Given that existing evidence shown that the perception of

any child having filial discrepancy is associated with parental dissatisfaction (see Chapter 4 of this dissertation), it is necessary to explore the concept of filial discrepancy using information from all offspring of a respondent.

Fourth, both studies have employed a singular quantitative method, and therefore cannot adequately capture the multi-dimensional nature of filial piety as the respondents themselves could actually express, failing to provide a larger and fuller picture regarding the concept of filial piety from the perspective of the respondents. Specifically, Li and colleagues (2011), on one side, did not define the meaning or content of what counts for being "impious." On the other side, the measure of filial discrepancy employed in Cheng and Chan's (2006) study solely reflected a researcher-determined instrumental notion of filial piety. A mixed-methods approach using both qualitative and quantitative methods will therefore be a stronger design than a single-method study, representing a methodological advantage. It will further broaden and enrich our understanding of the quantitative results from another perspective (Morse, 2009), as the supplemental component using an open-ended question defining "filial piety" from the perspective of older adults could be especially informative in terms of capturing the multiple-faceted nature of filial piety.

In summary, these gaps in the literature clearly indicate that knowledge regarding the association between offspring's filial discrepancy and parental depression is far from complete. The present study further explores this linkage while extending the literature by: (1) using a sample of older Chinese adults (not couples) living in one of the least developed counties in China, (2) controlling for a wide range of social support variables to provide a better test of the hypothesis, (3) taking into consideration the concept of filial

discrepancy across multiple children, and (4) employing a mixed-methods approach to gain a fuller understating of the definition of filial piety or filial discrepancy from the perspective of these older adults. Specifically, I seek to answer three research questions by employing quantitative and qualitative data. First, how does an older Chinese parent evaluate the filial discrepancy of each offspring? Second, how is this measure of filial discrepancy related to parental depression? Third, what is the meaning of filial piety from the perspective of these respondents?

I expect that offspring's filial discrepancy will be significantly linked to parental depression in old age, reaching the same conclusion as previous research while using a measure of filial discrepancy across multiple children and controlling for a broader range of social support covariates. I also expect to detect and reveal the evolving nature of filial piety from the perspective of these older parents via analyzing the qualitative data.

Methods

Data and Sample

Data were drawn from the 2014 Filial Piety and Health Survey (2014 FPHS) that was conducted between June and August 2014 using face-to-face interviews with a sample of 432 older people with 1,223 offspring in Linxi County, a traditionally agricultural county located in the Inner Mongolia Autonomous Region of northern China.

Linxi County represents an ideal study site to examine the continuity and change in the perceptions of and expectations about filial piety in terms of its economic standing and geographic location as one of the least developed counties in China, where survey data collection is rare. Linxi County has a total population of 240,906 as of 2013, of

which 94% are Han Chinese (the rest include ethnic groups such as Meng or Mongolian, Hui, and Manchu). Three-quarters of its residents live in rural areas and 16.29% of the population are adults aged 60 and over. It is one of 592 “below poverty level” counties nationwide as measured by the average annual disposable income of its residents (The State Council Leading Group Office of Poverty Alleviation), with 28% and 24% of its urban and rural residents living “below poverty level,” respectively. The annual disposable income is ¥18,209 ($2,785) and ¥6,771 ($1,036) per capita for Linxi County’s urban and rural residents respectively, equal to 67.55% and 76% of a much higher national average for the two types of residents separately (Linxi County Statistical Bureau, 2014). The selection of Linxi County as a study site will naturally shed new light on our understanding of how the concept of filial piety evolves in one of the least developed counties of China under the influences of multiple social forces such as industrialization, urbanization, and socioeconomic development. These are the leading forces that contribute to the decline of the traditional extended family system as well as values of filial piety (Cheng, 2015).

The 2014 FPHS sample was drawn from forty-five neighborhoods within seven community centers of the two subdistricts of the county seat and a township (a subdistrict is the equivalent of a township). Residents were eligible to participate if they were 60 to 79 years of age at the time of the survey, from different households (not couples), cognitively intact, had at least one living child, and could provide informed consent. The Institutional Review Board at the University of Utah approved this project in May 2014 (IRB: 00067618).

Procedures

The questionnaire was pretested in late May and early June 2014 with a group of older adults who were mainly relatives and family friends. I fine-tuned the wording of the questionnaire according to the feedback received before sending it out for printing.

The source of the sample was the electronic resident roster kept in the computer system of each community center. The roster recorded itemized demographic information for all the members of each household within all neighborhoods under the governance of the community center. At each participating community center, a community staff contacted eligible respondents and had the information about the survey explained to them. Of the 464 eligible residents contacted, 432 completed the face-to-face interview, yielding a response rate of 93%. The high response rate is largely attributable to the strong collaboration with and support from local governing subdistricts and community centers.

A team of three trained interviewers and I conducted all face-to-face interviews using a standard mixed-methods questionnaire. I recruited and trained the three interviewers and none of them was community staff. Interviews were conducted mostly at community centers (or rarely at the respondents' homes), without the presence of persons other than the respondent and the interviewer. Informed consent was obtained from each participant prior to the start of an interview. The duration of each interview varied from an hour and a half to two and a half hours. Participants received ¥50 ($7.60) on completion of the interview.

Dependent Variables

Parental depression was screened using a 5-item version of the Geriatric Depression Scale (GDS-5) that asks respondents to answer *yes* or *no* to the following five questions: "Are you basically satisfied with your life?" "Do you often get bored?" "Do you often feel helpless?" "Do you prefer to stay at home rather than going out and doing new things?" "Do you feel pretty worthless the way you are now?" For item 1, a response of *no* scores 1 point and *yes* 0 point; for items 2-5, a *yes* response scores 1 point and *no* 0 point. The maximum point total is 5. Respondents with a total score of 0 or 1 are considered "*normal*" (coded 0) while those who scored 2 or higher are categorized as "*depressed*" (coded 1) ($\alpha = 0.67$). The 5-item GDS is a quick, simple, and useful initial screening tools for depression. Evidence has shown that GDS-5 is as effective as the 15-item GDS for screening of depression in older adults (Hoyl et al., 1999; Nguyen, Inderjeeth, Tang, Barnabas, & Merriam, 2006) while avoiding response fatigue encountered while using the long and comprehensive form of the GDS assessments.

Key Independent Variable

Filial discrepancy is the key independent variable. Participants were asked to rate offspring's filial discrepancy using a one-item assessment: "How filial is each of your children rated using a 7-point scale ranging from 1 (*extremely unfilial*) to 7 (*extremely filial*)?" The intermediate levels of the scale include 2 (*unfilial*), 3 (*kind of unfilial*), 4 (*neutral/cannot tell*), 5 (*kind of filial*), and 6 (*filial*). Results show that parental reports of offspring's filial piety levels were skewed positively, with 80.56% of respondents reported all of their offspring being *filial* (6) or *extremely filial* (7) and only 19.44%

reported having at least one child with filial discrepancy (being *less than filial*, falling into categories from 1 to 5).

Research has shown that the older generation are more likely to report greater affection for and closeness to their adult children than their descendants do for them (Swartz, 2009), because parents invested more resources in their children than vice versa. In addition, parents tend to report high satisfaction in the parental role in spite of the presence of deleterious relationships with children (Secord & Backman, 1974) in respond to an attitude adjustment consistent with their earlier decision to have children. Dyadic responses of the parent's rating to each child were therefore combined across multiple adult children and collapsed into a dichotomous variable to address the positive skew: 1=*all offspring being filial* (each child had a score of 6 or 7), and 0= *any child with filial discrepancy* (at least one child had a score of 1 to 5). This dichotomization strategy also takes into consideration social desirability bias explaining that people have a tendency to report what is socially acceptable or expected rather than their real sentiments.

Other Covariates

Other covariates include sociodemographic variables, social support variables, and health status variables that have been identified to be associated with depression among older adults or older Chinese adults in particular (see Chen et al., 2012 for a review). Specifically, *age* was measured in number of years and *gender* was coded 1 for *female* while 0 for *male*. *Financial strain* was measured by asking, "How well does your present household income take care of your needs and the needs of your family?" Response options range from 1 (*poorly*) to 3 (*very well*). It was dichotomized into a

dummy variable to indicate whether the respondent experienced financial strain (1=*poorly*) or not (0=*fairly* or *very well*).

Social support variables comprise of a set of seven variables that measure various dimensions of the respondent's social support and relationships. *Marital status* was coded 1 for *married* and 0 for *widowed* or *divorced*. *Living arrangement* was coded 1 for *living alone* and 0 for *with others*. *Perceived social support from family and friends* was measured by the 8-item family and friends support subscale of the Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet, Dahlem, Zimet, & Farley, 1988). Respondents were instructed to rate their agreement level using a 7-point scale ranging from 1 (*very strongly disagree*) to 7 (*very strongly agree*) with eight statements, such as "My family really tries to help me." and "I can talk about my problems with my friends." The items were aggregated with higher scores indicating a higher level of perceived social support from family and friends ($\alpha = 0.85$). *Feeling of loneliness* was assessed by a single question that asks "Do you often feel lonely and isolated?" Responses range from 1 (*always*) to 5 (*never*) and were reverse coded such that higher scores indicate higher levels of loneliness. *Social participation* was measured by asking respondents "In the past 12 months, how often did you attend organized social activities such as a choir, a class/seminar/lecture, a committee or board, a support group, a reading or sport or exercise or hobby or religious or charity or games group, or a professional society, etc.?" Responses ranged from 1 (*several times a week*) to 8 (*never*) and were reverse coded such that higher scores indicate higher levels of social participation. *Number of confidants* was assessed by counting the number of friends and siblings with whom respondents felt close and could talk about things important to them over the last 12 months. *Satisfaction*

with the size of social network was coded 1 for *need more close friends* and 0 for *have enough close friends*.

Health status was measured by two variables. *Physical health* was assessed using a single item asking respondents, "How do you rate your overall physical health on a 5-point scale ranging from 1 (*excellent*) to 5 (*poor*) these days?" The five response options were collapsed into a dichotomous response (1= *bad*; 0= *good*). *Presence of chronic conditions* was tapped by the presence of at least one of nine diagnosed conditions (arthritis, asthma, cancer, chronic obstructive pulmonary disease, diabetes, heart disease, hypertension, osteoporosis, and chronic renal disease). Responses were coded into a dummy variable (1= *presence of at least one chronic conditions*, 0= *none*).

Open-ended thematic data

The personal meaning of a *filial* child from the perspective of these older parents was explored by an open-ended question asked at the end of the survey: "What makes a *filial* child (e.g., the characteristics of a *filial* child) in your view?" Participants were instructed to offer their answers in their own words and each answer was then recorded on the questionnaire by the interviewer.

Analyses

Data analysis proceeded in two parts to deal with survey data and open-ended thematic data integrated in a mixed-methods approach, respectively. I utilized logistic regression models to examine the association between filial discrepancy and parental depression after first calculating descriptive statistics for variables analyzed. Model 1

tested the effect of filial discrepancy controlling for sociodemographic characteristics, including age, gender, and financial strain. Model 2 added social support controls; and Model 3 incorporated health status controls into the previous model to form the full model. I conducted all analyses using Stata/MP 13.1.

Information from the open-ended question answered by the 432 participants was analyzed to shed light on the multiple dimensions of the meaning of "*a filial child*" by older parents, using content analysis to obtain broad categorical themes (Hsieh & Shannon, 2005). I carefully read all 432 transcripts three times and collapsed them into an initial list of ten categorical themes developed during this process. The transcripts were then repeatedly assessed and contrasted within and between themes to ensure that each was assigned to the most appropriate theme it meant to be. Themes were further combined or revised as analysis proceeded. Six general themes emerged ultimately and they could be grouped into three types of filial piety values drawn from the filial piety and filial obligation literature. Individual responses pertaining to each general theme were then counted to facilitate an analysis of frequencies, a technique commonly used in mixed-methods research (Morse, 2009). The themes were numbered based on their individual and combined frequencies (the two are consistent).

Results

Survey data

A description of the sample characteristics is presented in Table 5.1. The sample is composed of 432 older parents with a mean age of 66.24 years (range 60-79; *SD*=5.00). They had 1,223 adult children (range 1-8, mean=2.83, *SD*=1.17). The majority of the

TABLE 5.1

Descriptive Statistics of Variables Analyzed (N=432)

Variables	Range	M (SD)	%
Parental Depression (ref.=normal)			34.95
Offspring's filial discrepancy (ref.=no)	0 – 1		19.44
Socio-demographic & financial strain			
Age in years	60 – 79	66.24 (5.00)	
Female (ref.=male)	0 – 1		55.32
Financial strain (ref.=no)	0 – 1		39.58
Social support			
Married (ref.=widowed/divorced)	0 – 1		77.08
Living alone (ref.=with others)	0 – 1		13.89
Perceived social support from family and friends [a]	16 – 56	42.90 (7.15)	
Loneliness [a]	1 – 5	1.80 (1.03)	
Social participation [a]	1 – 8	4.30 (3.31)	
Number of confidants	0 – 8+	4.37 (2.67)	
Need more close friends (ref.= have enough close friends)	0 – 1		57.41
Health status			
Poor physical health (ref.=good)	0 – 1		63.89
Presence of chronic conditions (ref.=no)	0 – 1		83.56

[a] Higher scores indicate greater levels of variables, respectively.

participants were women (55.32%), married (77.08%), wished to have more close friends (57.41%), and reported having poor physical health (63.89%) and at least one chronic condition (83.56%). Slightly more than one-third of the respondents were depressed (34.95%) and experienced financial strain (39.58%). About 13.89% lived alone, and about one-fifth rated at least one offspring having filial discrepancy (being *less than filial*) compared to the rest of the sample that rated all offspring being *filial* (80.56%). With regard to other social support variables, the mean score of perceived social support from family and friends, of loneliness, social participation, and number of confidants was 42.90 (range 16-56; *SD*=7.15), 1.80 (range 1-5; *SD*=1.03), 4.30 (range 1-8; *SD*=3.31), and 4.37 (range 0-8^{+}; *SD*=2.67), respectively.

Table 5.2 presents results from logistic regression. The overwhelming importance of filial discrepancy rated across all offspring is evident throughout the three models. Specifically, older adults who had at least one child with filial discrepancy were 172.2% more likely to be depressed compared with those who had all offspring being rated *filial* (odds ratio = 2.722), net of age, gender, and financial strain (Model 1). This association remains significant with a slight decrease in odds ratios after seven social support controls are added (Model 2; odds ratio=2.264) and additional health controls are included (Model 3; odds ratio=2.254), although the significance level changes from .001 (Model 1) to .01 (Models 2 and 3). The results on the control variables are consistent across the models. In line with the literature, female gender (Li, Zhang, Shao, Qi, & Tian, 2014), financial strain (Chen et al., 2012), loneliness (Aziz & Steffens, 2013), social participation (Chen et al., 2012), number of confidants (Schwarzbach et al., 2014), need more close friends (Santini, Koyanagi, Tyrovolas, Mason, and Haro, 2015), as well as

TABLE 5.2

Odds from Logistic Regression of Parental Depression (N=432)

Variables	Parental Depression		
	Model 1	Model 2	Model 3
Offspring's filial discrepancy (ref.=no)	2.722***	2.264**	2.254**
Socio-demographic & financial strain			
Age in years	1.037	1.034	1.043
Female (ref.=male)	2.247***	2.637***	2.147**
Financial strain (ref.=no)	3.387***	3.000***	2.598***
Social support			
Married (ref.=widowed/divorced)		1.799	1.803
Living alone (ref.=with others)		1.382	1.474
Perceived social support from family and friends [a]		0.989	0.974
Loneliness [a]		1.735***	1.545***
Social participation [a]		0.914*	0.906*
Number of confidants		0.873**	0.901*
Need more close friends (ref.= have enough close friends)		2.255**	2.251**
Health status			
Poor physical health (ref.=good)			3.074***
Presence of chronic conditions (ref.=no)			3.636**
Overall model χ^2	66.770***	122.550***	151.900***
df	4	11	13

[a] Higher scores indicate greater levels of variables, respectively.

*P<. 05; **P<. 01; ***P<. 001.

poor physical health and presence of chronic conditions are significantly associated with parental depression (Huang et al., 2010). Contrary to some studies (see Chen et al., 2012 for a review) yet consistent with other studies (e.g., Schwarzbach et al., 2014), marital status and living alone are not associated with parental depression in this sample, however.

Open-ended thematic data

The analysis of qualitative data reveals that the meaning of "a *filial* child" varies among older parents and it is a complex concept with multiple facets in terms of the number of themes that emerged and the number of respondents whose answers could be explained by a combination of two to three themes calculated (Tables 5.3 and 5.4). Specifically, slightly more than one third of the sample's answers fall into a combination of two to three themes, while the majority's answers (65.30%) feature only one of the six themes. Answers from 103 respondents, for instance, could be represented by both Theme 1 and one or two other themes. Below is a brief description of each theme.

Theme 1. *Obedience and respect* ($n_{theme\ 1\ only} = 97$; $n_{combined\ themes} = 103$; $n_{total}=200$). This is the most commonly occurring definition of a *filial* child, with the highest individual and combined (together with other themes) frequencies identified among respondents. Under this overarching theme, two subthemes were detected as "being obedient" and "being respectful". Below are some sample quotes, with background information of the respondent provided in a pair of brackets.

- *An obedient child is a filial child.*

(ID36: mother of three; 62; junior high school; living with husband and a

TABLE 5.3

Types, Themes and subthemes, and examples from the open-ended question of "What makes a filial child" in the participants' view (*N*=432)

Types	Theme and Subthemes	Sample Quotes
Traditional filial piety values in a much diluted form	1. Obedience and respect • being obedient • being respectful	"An obedient child is a filial child." "A filial child is a child who interacts with the parents in a respectful manner." "Lack of respect is an absolute no-no. A filial child always talks to the parents in a kind manner and never talks back." "A filial child will not do things that make the parents sad or angry. S/he never speaks loudly to the parents, even when s/he does not agree with the parents.
	2. Maintain frequent contact and show emotional care • Come to visit/call and talk with parents regularly • Listen to and care about parents' concerns and feelings • Express care, gratitude, and love to parents	"Filial children visit their parents' as often as they can. They come to help their parents around the house such as do laundry and wash the dishes after dinner." "A filial child comes to visit the parents, understands the parents' feelings and wishes, and shows concerns for the parents' fitness and life style." "A filial child visits the parents often when having time; s/he calls the parents often when busy; s/he cares about what the parents are doing and how the parents are feeling." "Filial children always check in on the parents to see how they are doing and if the parents need anything even if they are busy."
Filial piety values similar to those of filial obligations held in Western	3. Help older parents when in times of need	"A filial child provides personal care to the parents when they are ill." "We can always count on him if we need him." "Contribute voluntarily to my medicine bills when I cannot afford to on my own." "Provide physical care to the parents when they ever get to the point."
	4. Be a good citizen and take good care of themselves and their	"A filial child is a good citizen who has a decent job and steady income, positively contributing to his/her company, his/her family, and the society."

TABLE 5.3 *Cont.*

Types	Theme and Subthemes	Sample Quotes
cultures	families	"A filial child is a child who takes good care of herself/himself. S/he has a job, is in a happy marriage, is a good parent, and lives a good life. The parents thus no need to worry for her/him or her/his family." "A filial child is a child who will not get into troubles and who will not bother the parents with his/her own problems."
Traditional filial piety values in the absolute form	5. Take care of every aspect of the parents' life	"A filial child is a child who helps the parents in all areas…take care of whatever the parents want and need." "A filial child listens to the parents' concerns, cares for the parents, provides material support to the parents, pleases the parents, and makes the parents happy." "A filial child is a child who gives the parents money, provides sick care for the parents, pays for food and clothing, and fills in medical prescriptions for the parents."
	6. Provide material support to parents	"A filial child provides food and clothing to the parents, making sure the parents have groceries." "Give the parents more pocket money if they are financially capable." "Buy the parents whatever they want."

TABLE 5.4

Frequencies for individual theme and the combination of themes (*N*=432)

	Traditional filial piety values in a much diluted form		Filial piety values similar to those of filial obligations held in Western cultures		Traditional filial piety values in the absolute form		Total	%
	Theme 1	Theme 2	Theme 3	Theme 4	Theme 5	Theme 6		
Individual frequency (number of respondents whose answer contains only one of the six themes)	97 [a]	67	52	35	31	0	282 [d]	65.30
Combined frequency (number of respondents whose answer contains not only this theme but also other themes)	103	46 [b]	41	43	13	24	150 [e]	34.70
Total	200	113	93 [c]	78	44	24	432	100

Explanatory notes:

[a] Nighty seven respondents whose answers feature Theme 1 only.

[b] Forty-six respondents whose answers feature not only Theme 2 but also other themes.

[c] The sum of individual and combined frequencies for Theme 3 is 93.

[d] Two hundred eighty-two respondents (65.30% of the sample) whose answers fall into only one of the six themes.

[e] One hundred fifty respondents (34.70% of the sample) whose answers feature more than one theme.

grandchild; receiving a monthly pension of ¥900; 100% financially independent).

- *A filial child is a child who interacts with the parents in a respectful manner.* (ID112: mother of one; 60; senior high school; living with husband; receiving a monthly pension of ¥2, 000; 80% financially independent).
- *Lack of respect is an absolute no-no. A filial child always talks to the parents in a kind manner and never talks back.* (ID256: father of four, 65, junior high school; widowed; living alone; receiving a monthly pension of ¥3, 000; 100% financially independent).
- *A filial child will not do things that make the parents sad or angry. S/he never speaks loudly to the parents, even when s/he does not agree with the parents.* (ID375: father of three; 64; associate's degree; living with wife and a grandchild; receiving a monthly pension of ¥5, 700; 100% financially independent).

Theme 2. *Maintain frequent contact and show emotional care* ($n_{theme\ 2\ only}$ = 67; $n_{combined\ themes}$ = 46; n_{total} =113). This is the second highest ranked theme by the participants that emphasizes the importance of emotional support as the characteristics of a *filial* child. Three subthemes emerged, including "come to visit or call and talk with parents regularly," "listen to and care about parents' concerns and feelings," and "express care, gratitude, and love to parents." Examples of these responses are:

- *Filial children visit their parents' as often as they can. They come to help their parents around the house such as do laundry and wash the dishes after dinner.*

(ID12: mother of two; 60; junior high school; living with husband; monthly pension unknown; 100% financially independent).

(ID156: father of three; 69; senior high school; living with wife; receiving a monthly pension of ¥3, 600; 100% financially independent).

(ID394: father of two; 60; elementary school; living with wife, daughter, and mom; receiving a monthly pension of ¥2, 300; 20% financially dependent on children).

- *A filial child comes to visit the parents, understands the parents' feelings and wishes, and shows concerns for the parents' fitness and life style.*

  (ID420: father of two; 64; elementary school; living with wife and a grandchild; income unknown; 100% financially dependent on children).

- *A filial child visits the parents often when having time; s/he calls the parents often when busy; s/he cares about what the parents are doing and how the parents are feeling.*

  (ID140: father of five; 76; junior high school; living with wife; receiving a monthly pension of ¥4, 200; 100% financially independent).

- *Filial children always check in on the parents to see how they are doing and if the parents need anything even if they are busy.*

  (ID356: father of three; 73; technical or vocational school; living with wife; receiving a monthly pension of ¥3, 500; 100% financially independent).

Theme 3. *Help older parents when in times of need* ($n_{theme\ 3\ only} = 52$; $n_{combined\ themes} = 41$; $n_{total} = 93$). Participants falling into this theme define a filial child as a child who provides the parents with help in times of need. Sample quotes include:

- *A filial child provides personal care to the parents when they are ill.*

  (ID45: mother of two; 62; no formal education; living with husband and a grandchild; receiving a monthly pension of ¥900; 100% financially independent).

- *We can always count on him if we need him.*

  (ID184: mother of three; 62; no formal education; living with husband; receiving a monthly pension of ¥300; 80% financially dependent on children).

- *Contribute voluntarily to my medicine bills when I cannot afford to on my own.*

  (ID153: mother of two; 60; elementary school; living with husband and unmarried son; receiving a monthly pension of ¥900; 100% financially independent).

- *Provide physical care to the parents when they ever get to the point.*

  (ID319: mother of five; 76; no formal education; widowed; living alone; receiving a monthly pension of ¥330; 80% financially dependent on children).

  (ID369: father of three; 67; senior high school; living with wife; receiving a monthly pension of ¥950; 100% financially independent).

Theme 4. *Be a good citizen and take good care of themselves and their families* ($n_{theme\ 4\ only}$ = 35; $n_{combined\ themes}$ = 43; n_{total} =78). Interestingly, thirty-five participants whose answers could be categorized into this theme thought solely about the characteristics and wellbeing of the child when defining "what makes a filial child." None of these respondents mentioned how a *filial* child could serve his or her parents. Below are some sample quotes:

- *A filial child is a good citizen who has a decent job and steady income, positively contributing to his/her company, his/her family, and the society.*
  (ID309: mother of three; 64; technical or vocational school; living with husband; receiving a monthly pension of ¥3, 990; 100% financially independent).
- *A filial child is a child who takes good care of herself/himself. S/he has a job, is in a happy marriage, is a good parent, and lives a good life. The parents thus have no need to worry for her/him or her/his family.*
  (ID8: father of two; 63; junior high school; living with wife; receiving a monthly pension of ¥2, 035; 100% financially independent).
  (ID258: mother of three; 63; junior high school; living with husband; receiving a monthly pension of ¥1, 000; 100% financially independent).
- *A filial child is a child who will not get into troubles and who will not bother the parents with his/her own problems.*
  (ID228: father of three; 71; junior high school; living with wife; receiving a monthly pension of ¥3, 200; 100% financially independent).
  (ID313: mother of three; 63; no formal education; living with husband and a grandchild; receiving a monthly pension of ¥1, 700; 100% financially independent).
  (ID365: mother of one; 60; junior high school; living with husband; receiving a monthly pension of ¥1,030; 100% financially independent).
  (ID410: father of three; 62; senior high school; living with wife; receiving a monthly pension of ¥4,800; 100% financially independent).

Theme 5. *Take care of every aspect of the parents' life* ($n_{theme\ 5\ only}$ = 31; $n_{combined\ themes}$ = 13; n_{total} =44). Participants whose answers fall into this theme set no limits on the extent of what a *filial* child would do for the parents. Many of them defined a *filial* child as a child who will do whatever the parents need or ask for, including providing emotional, practical, and material support to the parents and even more, covering almost all of the contents of Themes 1, 2, 3, and 6 (discussed immediately next). Examples of these responses are:

- *A filial child is a child who helps the parents in all areas…take care of whatever the parents want and need.*

  (ID18: father of four; 71; elementary school; cohabiting with a romantic partner and a son with dwarfism; receiving a monthly pension of ¥420; 20% financially dependent on children).

  (ID39: mother of two; 60; senior high school; widowed; living alone; receiving a monthly pension of ¥300; 80% financially dependent on children).

  (ID105: father of three; 61; elementary school; living with wife, grandchildren, and mother-in-law; receiving a monthly pension of ¥2, 300; 80% financially independent).

  (ID113: mother of two; 61; junior high school; living with husband and mother-in-law; receiving a monthly pension of ¥1, 000; 100% financially independent).

  (ID312: mother of two; 60; technical or vocational school; living with husband; receiving a monthly pension of ¥4, 000; 100% financially independent).

(ID303: father of three; 65; technical or vocational school; living with husband; receiving a monthly pension of ¥3, 730; 20% financially dependent on children).

- *A filial child listens to the parents' concerns, cares for the parents, provides material support to the parents, pleases the parents, and makes the parents happy.*

  (ID84: father of one; 65; junior high school; living with wife; receiving a monthly pension of ¥60; 50% financially dependent on child).

- *A filial child is a child who gives the parents money, provides sick care for the parents, pays for food and clothing, and fills in medical prescriptions for the parents.*

  (ID300: mother of four; 79; no formal education; widowed; living with son's family; receiving a monthly pension of ¥80; 80% financially dependent on children).

Theme 6. *Provide material support to parents* ($n_{theme\ 6\ only} = 0$; $n_{combined\ themes} = 24$; $n_{total} = 24$). This is the theme with the lowest frequency. None of the responses features this theme only. Only responses from 24 participants fall into this theme and one or two other themes together. Below are some sample quotes:

- *A filial child provides food and clothing to the parents, making sure the parents have groceries.*

  (ID76: mother of four; 78; no formal education; widowed; living alone; receiving a monthly pension of ¥420; 50% financially dependent on children).

- *Give the parents more pocket money if they are financially capable.*

(ID148: mother of one; 64; no formal education; living with husband, daughter and a grandchild; monthly pension unknown; 100% financially dependent on the daughter).

- *Buy the parents whatever they want.*

  (ID179: father of three; 74; elementary school; widowed; living alone; receiving a monthly pension of ¥300; 50% financially dependent on children).

Robust Check

In preliminary analysis, I tested three other parental SES variables (e.g., education, occupation before retirement, and rural/urban division) and found that none of them is significantly related to parental depression. Moreover, I included the variable of number of living children in the models yet it was not significant and the models remained largely the same with or without its existence. Furthermore, the results were very similar to the results reported here no matter treating the two health status variables as either dichotomized variables or continuous ones. In addition, I estimated models that examined the effects of six variables commonly used to measure adult children's filial behaviors on parental depression, including providing practical assistance to parents, listening to parents' problems, respecting parents, being obedient to parents, sharing similar world views with parents, and adult children's behavioral problems. Preliminary results showed that none of the six variables was significant. Lastly, I repeated the preliminary analysis adding filial piety interaction terms with age, gender, and financial strain respectively. Again, results shown that none of these interaction terms was significant. All preliminary results are available upon request.

Discussion

This study examines the association between offspring's filial discrepancy and depression of older parents in a sample of 432 older Chinese adults. Findings of the quantitative analysis reveal that filial discrepancy is significantly and positively associated with parental depression, net of sociodemographic characteristics, social support, and health status. Taken together, filial piety, as a benchmark value system in the Chinese family culture, continues to play an important role in older Chinese adults' wellbeing. These quantitative findings corroborate and extend previous research (Cheng & Chan, 2006; Li et al., 2011) by revealing for the first time that the influence of offspring's filial discrepancy on parental depression is above and beyond social support from various sources or relationships.

Quantitative findings confirm the association between filial discrepancy and parental depression. These results, however, pique further interest in the meaning of "a *filial* child" from the perspective of older parents. Qualitative data, as a supplement to quantitative results, show the coexistence of traditional and modern filial piety values in this sample in relation to personal meaning of "a filial child". These include widely persistent traditional filial piety values yet in a much diluted form (Themes 1 and 2), filial piety values that are the same as filial obligations described in Western cultures (Themes 3 and 4), and traditional filial piety values in the absolute form (Themes 5 and 6), respectively. By "traditional", it means sticking to the norm of filial piety in which viewing older parents' dependence on adult children in old age as a cultural and social entitlement contract with adult children (Takagi & Saito 2013, p. 1054). By "modern" here, it refers to filial obligation norms upheld in Western countries.

Specifically, Theme 1 – "Obedience and respect" – indicates that the traditional filial piety beliefs such as a filial child should obey and respect one's parents is still widely endorsed among older adults, yet in a much diluted form. This finding is consistent with previous studies showing that absolute obedience has decreased in relevance (e.g., Li et al., 2010), reflecting traditional filial piety values are undergoing modification in the context of modernization. This finding also corresponds to the fact that people use *xiaoshun* (literally, *filial piety* and *obedience*) in contemporary Chinese to refer to filial piety in their daily dialogues, although filial piety was exclusively referred to *xiao* in ancient Chinese. This usage implies that obedience is considered in contemporary China as a component of filial piety (Li, Hodgetts, Ho, & Stolte, 2010) and my finding confirms it. Theme 2 emphasizes that "Maintaining frequent contact and showing emotional care" is an important dimension of perceived filial piety by older adults. These expectations reflect a diluted adherence to traditional filial piety values and overlap with filial obligations in Western cultures (Kim et al., 2015) as well as filial beliefs held by older Chinese immigrants in the United States (Dong, Chang, Wong, & Simon, 2012).

Themes 3 and 4 – "Helping older parents when in times of need" and "Being a good citizen and take good care of themselves and their families" – represent filial piety values that converge with filial obligations in Western cultures. A basic difference between filial piety in Confucian culture and filial obligation in Western cultures is that the latter is need-driven with regard to adult children are only expected to help older parents "at times of need" (Cheng & Chan, 2014; Gans & Silverstein, 2006). High levels of support from adult children even have negative effects on parents' psychological

wellbeing, presumably because such behaviors could weaken the autonomy of the parents and create unnecessary dependencies (Silverstein, Chen, & Heller, 1996). In contrast, filial piety in Confucian culture requires offspring to view their filial obligations as a "life-long responsibility" to demonstrate how devoted they are to the parents and make parents be free from worry regardless of parental needs (Kim et al., 2015). In this regard, Kuo (2010) even claimed that children's practice of filial piety or doing *xiao* could be seen as an added occupation of being a child. Also in Western culture, children are encouraged to focus on their own interests even though such actions may take children's times and attention away from the parents (Kim et al., 2015). On this subject, Themes 3 and 4 indicate that convergence toward modern filial obligation is occurring.

Contrary to previous themes, Themes 5 and 6 – "Take care of every aspect of the parents' life" and "Provide material support to parents" – are representative of traditional filial piety values in the absolute form. For subscribers of both themes, they defined a *filial* child as a child who adheres to ideas of unconditional filial responsibilities (Theme 5) or who sticks with one of the basic tenets of filial piety that focus on providing support to meet the material and physical needs of older parents (Theme 6) (Chow, 2001). Theme 5 in particular reflects that some participants felt entitled to offspring's support and set no boundaries on a filial child's filial obligations. They believed that a filial child's duty is to take care of the parents such that the parents' will not worry for anything.

Overall, the qualitative findings highlight the importance of considering personal meaning of filial piety from the perspective of the older adults in the attempt to better understand the association between offspring's filial discrepancy and parental depression

in late life. Filial piety is multifaceted rather than a uniform concept. It has different meanings among older adults and each meaning represents a type of distinct filial expectation. Perhaps the most striking finding is that traditional filial piety values are fading even in a county with lower/lowest levels of economic development and industrialization, reflected in the cross-cultural consensus regarding filial values between Chinese culture and Western culture among this sample of older adults. Some participants possessed both value systems and some possessed only one. It is also worth noting that none of the participants described geographic proximity (e.g., living with a child) or patrilocality (e.g., son is preferred or produce a male heir) as integral to the meaning of "a filial child."

This study is constrained by several limitations. First, the 2014 FPHS sample is not representative of older parents in China. Future studies employing national probability samples from China or even other East Asian countries where values of filial piety are also upheld are needed to ascertain its generalizability. That said, the sample statistics are roughly comparable to those of the Chinese aged 60 to 79 living in townships in terms of sex and education composition according to the 2010 Census (National Bureau of Statistics, 2012, Forms 3-1b and 4-1b). Second, although findings provide evidence of the association between offspring's filial discrepancy and parental depression, the causal direction cannot be inferred due to the cross-sectional design of the 2014 FPHS data. It is possible for depressed parents to perceive some or all of their offspring as with filial discrepancy. Subsequent research using longitudinal data would help provide more definitive conclusion regarding the causal direction of this association and help explore how this association might change over time. Third, filial piety reflects

both the offspring's filial efforts and the parents' filial perceptions. This study focuses only on the parents' part of the story. Further studies on the understanding of filial piety from the perspective of offspring are necessary to draw a holistic picture of this question. Additional work using both subjective and objective ratings of filial discrepancy is warranted to further broaden our understanding of this topic as well.

In spite of these limitations, this study is the first mixed-methods study that explores the association between offspring's filial discrepancy and parental depression as well as the personal meaning of "a filial child" from the perspective of these older adults. When examining a complicated and important concept such as filial piety, a mixed-methods approach represents a methodological advantage. Quantitative results provide consistent evidence that offspring's filial discrepancy is associated with parental depression among older Chinese adults. This part of analysis also extends previous research by examining the association measuring filial discrepancy across multiple children, controlling for a wide range of social support variables, and drawing on recent data from one of the least developed counties in China. Qualitative findings further reveal potential sources of offspring's filial discrepancy by identifying six broad themes regarding participants' definitions of "what makes a filial child." These themes reflect the coexistence of traditional and modern filial piety values in this sample.

Nonetheless, qualitative findings of this study have important implications for interventions aimed at reducing offspring's filial discrepancy. It is evident that the personal meaning of filial piety varies among older Chinese adults. Filial discrepancy might occur due to the misinterpreting of parental needs from the offspring's part (Cheng & Chan, 2014) or due to developmental differences experienced by both generations

(Fingerman, 1996). The most straightforward implication of the findings would be developing family education programs to facilitate intergenerational communications between both generations regarding the filial perceptions and expectations of the older generation, in an attempt to enhancing mutual understanding and enabling offspring to better fulfill their filial obligations to optimize parental wellbeing (Mao & Chi, 2011). Additional work that investigates the determinants of offspring's filial discrepancy using a quantitative method would also be desirable to facilitate our understanding on this important topic by comparing and contrasting findings between quantitative and qualitative studies. This study also has implications for other Asian countries that are exposed to similar cultural contexts and undergoing comparably rapid social, demographic, and economic changes.

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CHAPTER 6

CONCLUSIONS

Relatively little research has considered the relationship between parental dissatisfaction and health and wellbeing in later life, without mentioning especially the mechanisms underlying this posited link. Moreover, what aspects of parent-adult child ties account for parental dissatisfaction in old age remain to date understudied. In addition, knowledge regarding the association between filial discrepancy and parental depression is inadequate. In this dissertation, I address these literature gaps using the 2014 FPHS data set, which I collected between June and August 2014 from a sample of 432 respondents (not couples) in Linxi County of northern China aged 60 to 79 with a total number of 1,223 offspring. Theoretically guided by the life course perspective, symbolic interactionism perspective, socioemotional selectivity theory, and stress process and stress proliferation process models, I hypothesize that with the parental role becoming increasingly important in later life parental dissatisfaction and offspring's filial discrepancy each would be significantly related to health and wellbeing of older Chinese parents. I also hypothesize that offspring's filial discrepancy would be associated with parental dissatisfaction.

The processes regarding data collection, data entry, and data cleaning are

discussed in detail in Chapter 2. Three studies – under Chapters 3 to 5 – investigate this topic, providing a complementary understanding regarding parental dissatisfaction, offspring's filial discrepancy, and their effects on parental health and wellbeing in later life. The first study (Chapter 3), "Parental Dissatisfaction, Health and Wellbeing in Later Life: The Main Effect, and Self-Esteem and Feeling Useless as Mediators across Four Outcomes," examines the association between parental dissatisfaction and each of the four health and wellbeing outcomes. The main effect of parental dissatisfaction aside, it also focuses on exploring possible psychological pathways that underlie such posited associations. It reveals that parental dissatisfaction is significantly associated with the four outcomes (i.e., physical health, mental health, depression, and life satisfaction) and self-esteem and feeling useless, as two psychological pathways, mediate these associations separately and simultaneously. It thus points to the importance of locating effective interventions to reduce parental dissatisfaction in old age. To achieve this goal, additional research is needed to explore, first of all, the correlates and/or determinants of late-life parental dissatisfaction.

This leads to the second study (Chapter 4), "Correlates of Parental Dissatisfaction: A Study of Later-Life Family Relationships in China," which aims to identify the correlates of parental dissatisfaction in old age across multiple children by testing five blocks of potential correlates. Using the same data set, it reveals that a number of factors are related to parental dissatisfaction. The most striking finding is that, among others, it is the factors such as *failing to get along with any child* and the perception of *any child having filial discrepancy*, rather than *dissatisfaction with emotional or practical or financial support from adult children*, that are associated with parental dissatisfaction

among older Chinese adults. Findings underscore the importance of taking culture-specific factors (e.g., filial piety or offspring's filial discrepancy) into consideration while examining parent-adult child relations in later life in Chinese society where Confucianism continues to exert an influence.

Built upon the second study, the final study (Chapter 5), "Offspring's Filial Discrepancy and Parental Depression: A Mixed-Methods Study," specifically focus on examining the associations between offspring's filial discrepancy and parental depression as well as exploring the personal meaning of filial piety from the perspective of these older parents, using a mixed-methods approach. Results from logistic regression indicate that offspring's filial discrepancy is significantly associated with parental depression, net of age, gender, financial strain, social support, and health status. Qualitative findings highlight the complexity and evolution of the filial piety concept by identifying six broad themes that reflect the coexistence of traditional and modern filial values regarding participants' definitions of "a filial child." These themes represent traditional filial piety values in a much-diluted form, filial piety values that converge with filial obligations in Western culture, and traditional filial piety beliefs in the absolute form.

Findings of this dissertation have implications for the development and implementation of appropriate interventions aimed to improve parental satisfaction and reduce perception of offspring's filial discrepancy. Findings from the third study, for instance, suggest the importance of developing family education programs to facilitate intergenerational communication between both generations regarding the filial perceptions and expectations of the older generation, in an attempt to enhancing mutual understanding and enabling offspring to better fulfill their filial obligations to optimize

parental wellbeing. Likewise, these findings have potential practical implications for other countries that share similar cultural background and undergo comparable social changes (especially those in East and Southeast Asia).

This dissertation research also points out future directions for additional studies on Chinese family and older adults. In general, further research with nationally representative samples or regional samples from other geographic locations is necessary in order to test the generalizability of my dissertation findings. To achieve better understanding of the causal direction of these associations and the possible reciprocal dynamics between psychological mechanisms and social ties as well as between filial discrepancy and depression, future research utilizing longitudinal data is also needed. In particular, additional research aims to understand the definition of filial piety from the perspective of adult children would also be helpful in order to draw a holistic picture of this question.

My dissertation study contributes to our knowledge of aging and health in China through the analysis of two understudied concepts using a unique data set. It is innovative in both its focus and approach. Parental dissatisfaction has been linked to depression among older Americans. Its influence on other health outcomes and/or under other cultural settings, however, remained unexplored before the arrival of this dissertation. For another understudied concept, offspring's filial discrepancy, this dissertation research expands the literature by illustrating the potential sources of filial discrepancy from the perspective of older adults. It thus provides a fuller and larger picture of this complex and evolving concept corresponding to grand social changes. In terms of its approach, using a mixed-method design to simultaneously collect both quantitative and qualitative data

from one of the least developed counties in China represents a methodological advancement. It allows me to adequately link structural and contextual family processes and describe results from both quantitative and qualitative analyses of the data. In addition, data collection from the least developed parts of China, such as counties on the state's List of Counties under Poverty Level, is rare. My dissertation research sheds new light on aging and health experiences of this under-represented population as well.

Given the richness and uniqueness of the 2014 FPHS data set, within the next few years, I plan to continue data analysis and manuscript writing using this data set to examine 1) the determinants of filial discrepancy using a quantitative approach; 2) the associations between elder mistreatment (the dark side of social relationships) and psychological resilience; 3) the definitions and perceptions of elder mistreatment from the perspective of older adults using qualitative method; and 4) the associations between parental dissatisfaction, psychological resilience, self-esteem, and feelings of uselessness, respectively. I may also pursue external funding opportunities to follow-up with the participants of my dissertation project in the future.